



CV502-U3

**Miniature Full-HD (USB 3.0) Camera**

**User Manual**

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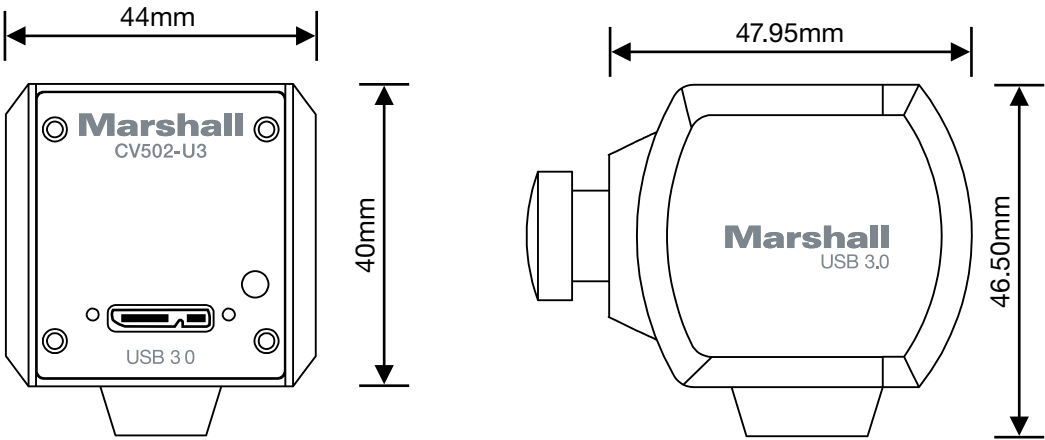
1. Package Includes: \_\_\_\_\_

- CV502-U3 USB 3.0 Miniature Camera (with 2.3mm lens)
- Locking USB 3.0 Cable (2m length)
- CVM-5 Mounting Clip

2. Features \_\_\_\_\_

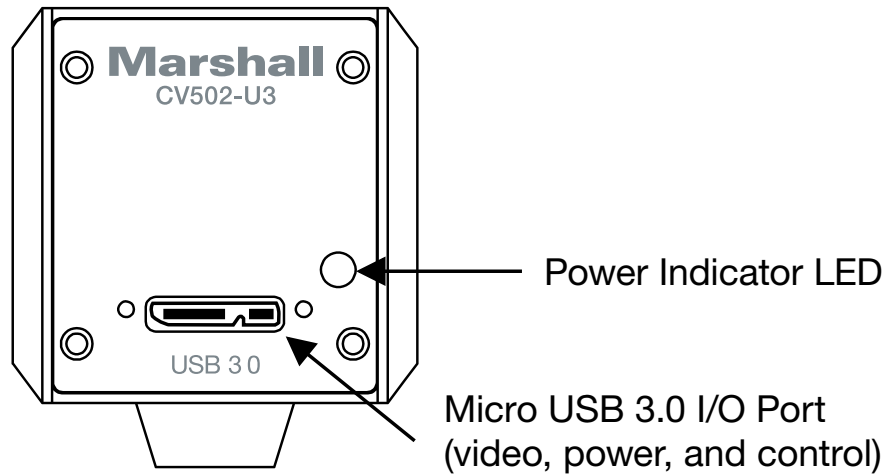
- 1/3” 2.1 Megapixel CMOS Progressive Scan Sensor
- Up to 1080p@60/59.94/50
- 0.2 Lux (Day Color)
- Power over USB
- UVC 1.5 Compliant

3. Dimensions \_\_\_\_\_



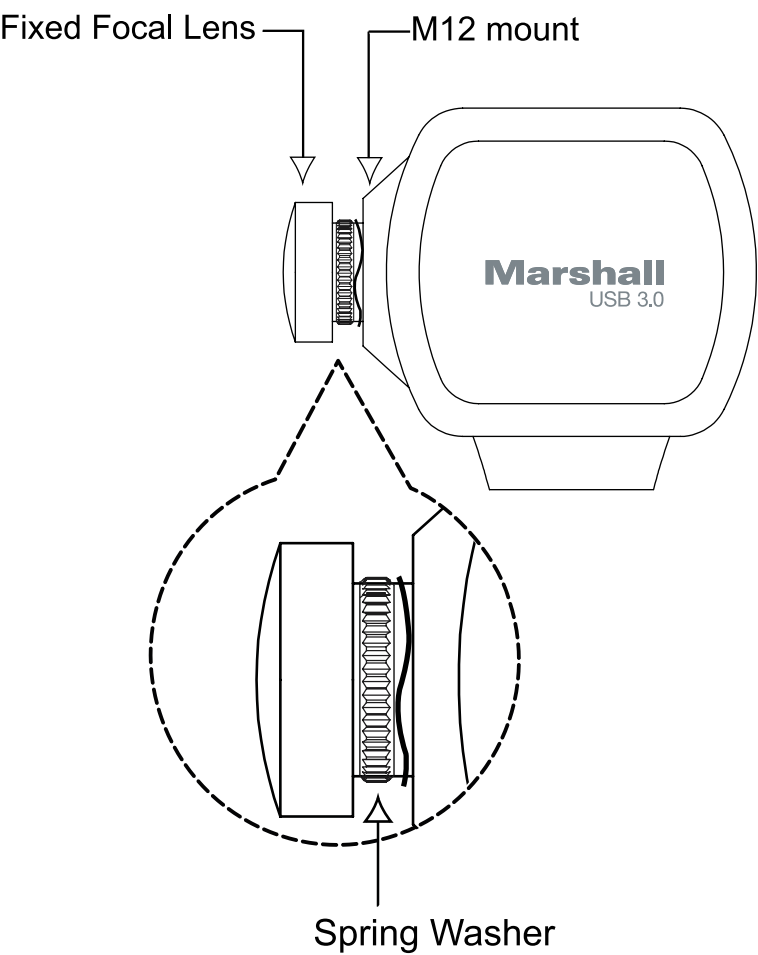
\* Design and specifications are subject to change without notice.

4. Rear Panel Video/Power Connection



5. How to Change a Fixed Focal Lens

- 1. Please check whether lens mount type is a M12 mount.
- 2. Spring washer is to be inserted between lens and mount.

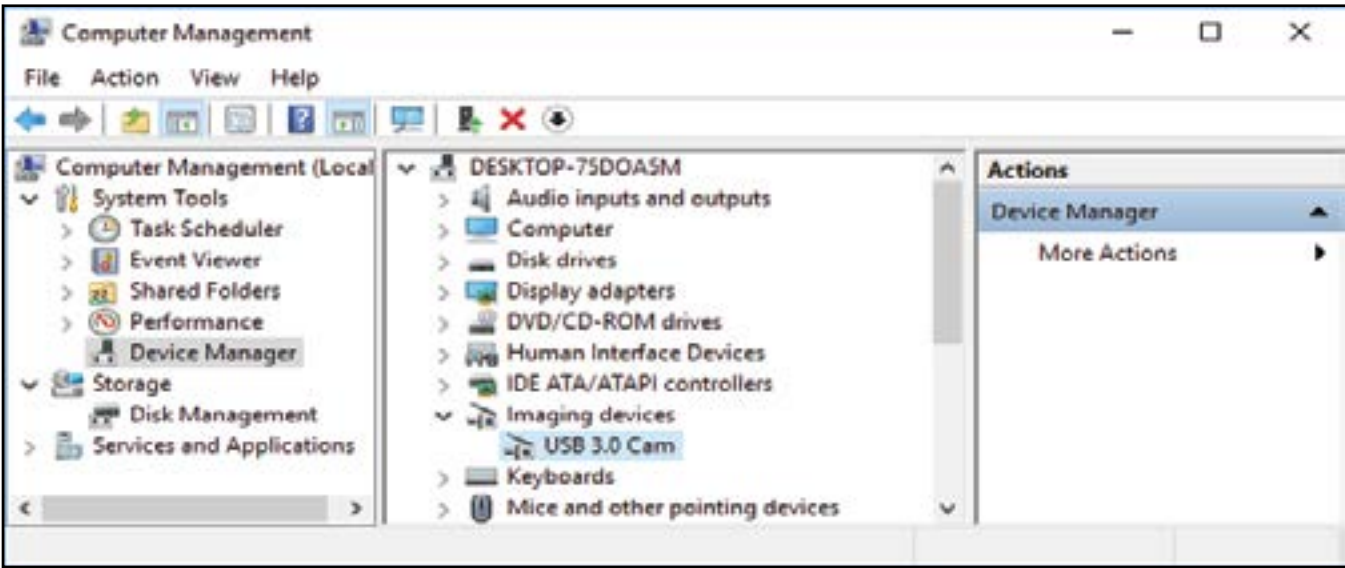


6. Specifications

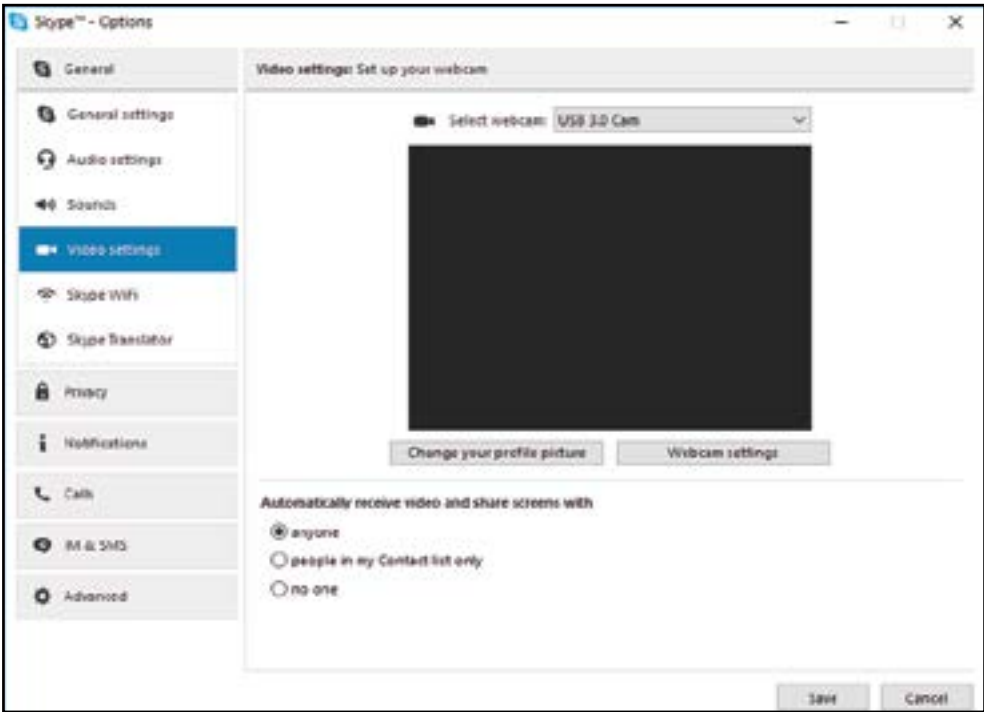
Sensor	Image Sensor	1/3" Progressive CMOS (Approx. 2.1 Megapixel)
	Scanning System	16:9 Progressive
	Sync. System	Internal
	Effective Panel	1920 (H) x 1080 (V)
	Min. Illumination	0.2 Lux (Day)
Video	USB 3.0	1080 60p / 59.94p / 50p / 30p / 29.97p / 25p 1080 60i / 59.94i / 50i 720 60p / 59.94p / 50p / 30p / 29.97p / 25p
Optics	Lens	Fixed HD Lens
UVC Video ProcAmp	Brightness	0 ~ 20 (Default 10)
	Contrast	0 ~ 64 (Default 32)
	Hue	-128 ~ 127 (Default 0)
	Saturation	0 ~ 20 (Default 15)
	Sharpness	0 ~ 20 (Default 10)
	Gamma	1 ~ 11 (Default 6)
	White Balance	Auto, 0 ~ 255 (Default 128 and Auto)
	Backlight Compensation	0 ~ 4 (Default 0)
	Gain	0 ~ 12 (Default 0)
	Power Line Frequency	50Hz/60Hz (Anti Flicker)
UVC Camera Control	Zoom (Digital)	0 ~ 255 (Default 0)
	Focus	-
	Exposure	Auto, -13 ~ 3 (Default -7 and Auto)
	Aperture (Iris)	Auto, 0 ~ 170 (Default 100 and Auto)
	Pan	-
	Tilt	-
	Roll	-
	Low Light Compensation	On/Off
General	Operation Temperature	-10°C ~ 50°C
	Power Input	Over USB
	Dimensions (W x H x D)	44 x 46.5 x 47.95 mm (without lens) 1.73 x 1.83 x 1.89 in. (without lens)
	Net Weight	Approx. 0.23 lbs (without lens) / 0.24 lb (with lens)
Hardware Requirements	CPU	i3 or higher
	GPU	Core speed of 1500Mhz or higher
	RAM	4GB or higher
Operating System Requirements	OS	Windows 7 or higher
	macOS	OSX 10.8 or higher

7. Camera Connection and Control

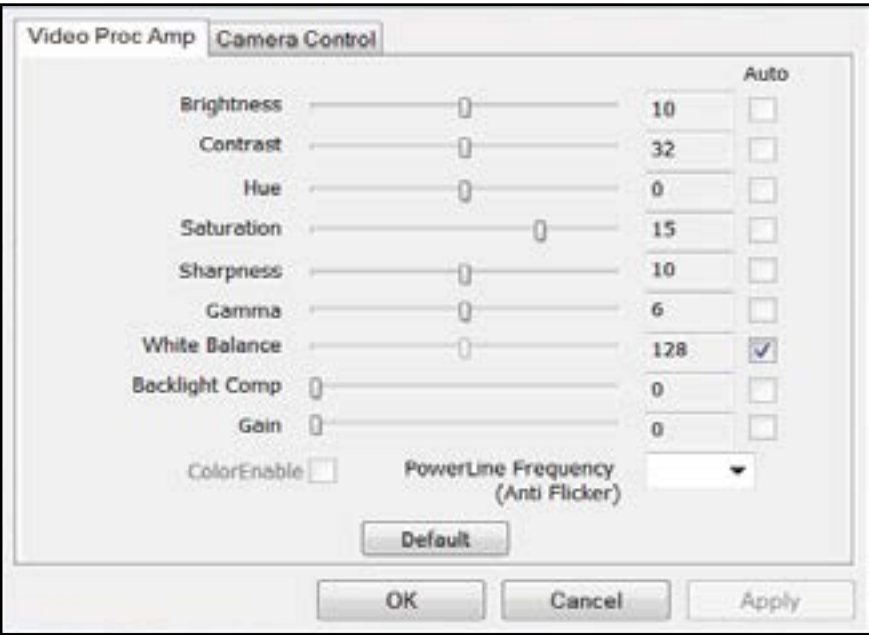
- 1. Install video client software on the computer that you want to use with CV502-U3.
- 2. Use the included USB 3.0 cable to connect CV502-U3 to the computer.
- 3. CV502-U3 should be recognized automatically by the computer. No additional installation of USB 3.0 driver is required.



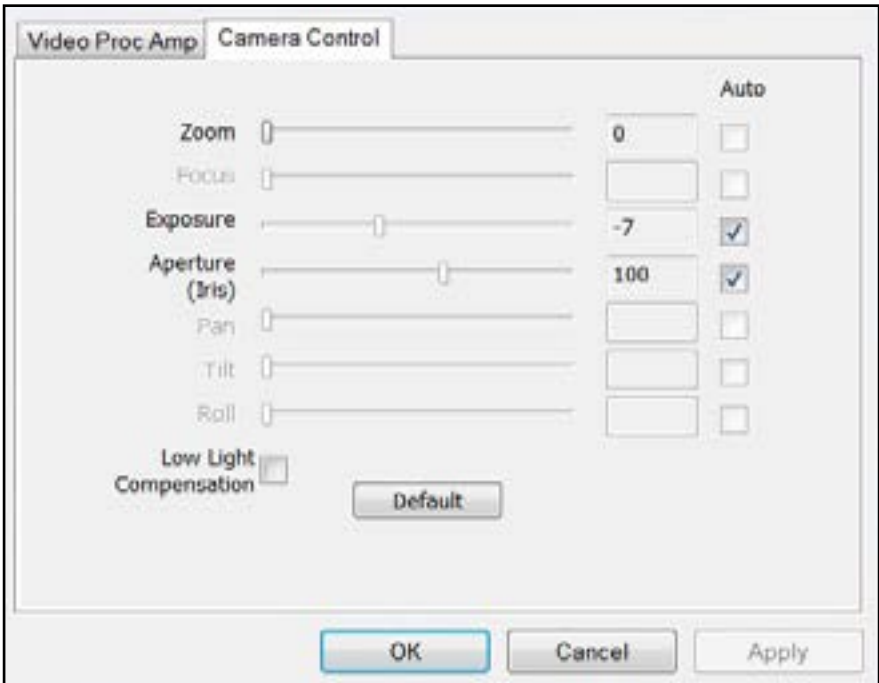
- 4. Open any video client software (i.e. Skype). Go to Tools / Options / Video Setting. In the “Select Webcam” drop down, choose “USB 3.0 Camera”.



- 5. Click “Webcam Settings” to control video properties. The “Video ProcAmp” control window will display.



- 6. Click “Camera Control” to control video properties such as Zoom, Exposure, Iris Control, etc.



## 8. Safety Instructions

Do not use camera if fumes, smoke or a strange odor is emitted from the unit, or if it seems to not function correctly. Disconnect the power source immediately and consult your supplier.

Always follow the instructions in the installation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly. For the correct power supply, please refer to the specification sheet.

Do not install or operate in small, unventilated areas. Overheating can significantly reduce the performance and operation life of the product and may cause a fire.

To prevent damage, do not drop the camera or subject it to strong shock or vibration.

If installed close to a TV, radio transmitter, magnet, electric motor transformer or audio speakers the magnetic field generated may interfere with or distort the image.

Whether or not the camera is used outdoors, never point it toward the sun. Use caution when operating the camera in the vicinity of spot lights or other bright lights and light reflecting objects.

Do not use the camera in extreme environments where high temperatures or high humidity exists. Use the camera under conditions where temperatures are between 14°F - 122°F (-10°C ~ 50°C), and humidity is below 90%.

## 9. Regulatory Notice

This device complies with part 15 of the FCC Rules.  
Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

## Warranty

Marshall Electronics warranties to the first consumer that this device will, under normal use, be free from defects in workmanship and materials, when received in its original container, for a period of two years from the purchase date. This warranty is extended to the first consumer only, and proof of purchase is necessary to honor the warranty. If there is no proof of purchase provided with a warranty claim, Marshall Electronics reserves the right not to honor the warranty set forth above. Therefore, labor and parts may be charged to the consumer. This warranty does not apply to the product exterior or cosmetics. Misuse, abnormal handling, alterations or modifications in design or construction void this warranty. No sales personnel of the seller or any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties on behalf of Marshall Electronics, beyond the time period described above.

Due to constant effort to improve products and product features, specifications may change without notice.

# Marshall

20608 Madrona Avenue, Torrance, CA 90503

Tel: (800) 800-6608 / (310) 333-0606 • Fax: 310-333-0688

[www.marshall-usa.com](http://www.marshall-usa.com)

[support@marshall-usa.com](mailto:support@marshall-usa.com)