WAT-07U2

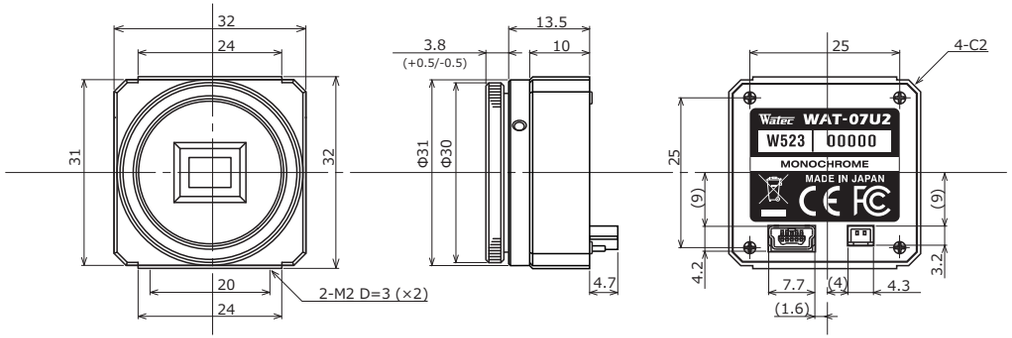
1/2.8” Compact High Sensitivity USB2.0 Full HD B&W Camera

Added B&W version to the USB camera series

Key features

- Directly import the image to your PC and compact design specializes in the embedded application
- Min. illumination 0.002 lx F1.4 (AGC ON=36dB, Shutter=OFF)
  0.0005 lx F1.2 (AGC ON=36dB, Shutter=1/7.5 sec.)
- The internal ISP (Image Signal Processor) enables optimal image quality for your usage
- Simple viewer software with features to change the camera settings and capture images

Dimensions



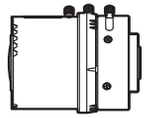
Specifications

Pick-up element		1/2.8 inch BSI CMOS image sensor
Number of effective pixels		1945(H) × 1097(V)
Unit cell size		2.9μm(H) × 2.9μm(V)
Imaging system		–
Synchronizing system		Internal
Scanning system		Progressive
Output size		1920x1080, 1280x720, 640x480, 320x240
Max. frame rate		30 fps
Video compression		MJPG, YUY2
Video output		USB Video Class (Compatible)
Resolution (H)		More than 800TVL (Center)
Minimum illumination		0.002 lx F1.4 (AGC ON=36dB, Shutter=OFF)
		0.0005 lx F1.4 (AGC ON=36dB, Shutter=1/7.5 sec.)
S/N		–
Function settings		Camera Viewer
AE mode	Fixed	1/15, 1/7.5, 1/4 sec.
		1/30, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000 sec.
	EI	1/30 - 1/8000 sec.
		1/7.5 - 1/8000 sec.
White balance		–
AGC	ON	0 - 36dB
	OFF	–
MGC		0 - 72dB (1dB step)
Gamma characteristics		γ≒USER (Level adjustable)
Noise reduction		–
Wide dynamic range		–
Lens iris		–
Back light compensation		BLC
White blemish correction		–
Sharpness		Level adjustable
Defog		–
Digital zoom		×1, ×1.38, ×2.25 *1 / ×1, ×1.2, ×1.5 *2
Privacy mask		–
Mirror image		–
Freeze		–
Motion detection		–
Neg.image		–
Interface		USB2.0 Mini-B, 2P connector (Snap shot)
Power supply		USB +5V
Power consumption		0.65W (130mA)
Operating temperature		-10 - +50℃
Storage temperature		-30 - +70℃
Operating / Storage humidity		95% RH or less (Without condensation)
Lens mount		CS mount (Back focus adjustable)
Cable length		Shorter than 3.0m recommended
Weight		Approx. 35g
Accessories		Hex wrench, Camera bracket, EX cable, USB cable (USB2.0 Mini-B to Standard-A)
Recommended System Specifications	CPU	Intel® Core TM i Series
	RAM	2GB or larger
	Others	USB2.0 Port, 1920×1080 or better resolution display
Operation Confirmed OS		Windows 10 32bit/64bit, Windows 11

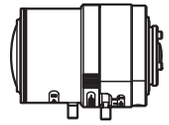
*1: Output format: 640x480 *2: Output format: 1280x720

Accessories Options

CS-mount lenses



M13VM288IR



A4Z2812CS-MPIR

Miniature lenses / Mount adaptors

M2520BC-12

M3620BC-12

28MMA-M12-155

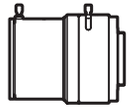
M0620BC-12

M1625BC-12

M2920BC-12

28MMA-M12-140

C-mount lenses

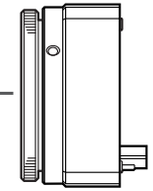


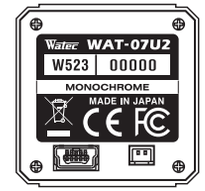
*Not in our lineup

C-mount adaptor

30CMA-R

WAT-07U2





GPIO

Cable

Snap shot

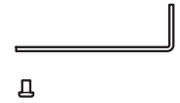
EX cable (300mm)

Cable

USB cable (1m)

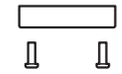
*Watec Camera Viewer recommended
Download from Watec website

Holder



H003

Camera bracket



B005

Stand

MS50