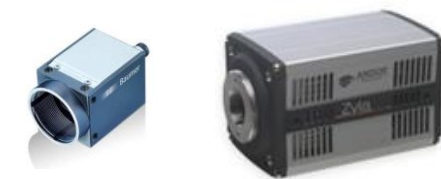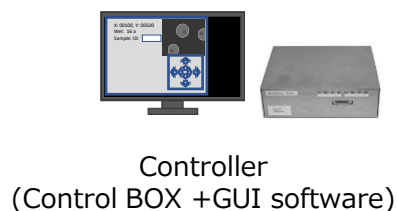Integrated system of microscope stage and camera

WelScan CAM

Single GUI controls Camera and XY stage
(travel range 110mm x 75mm)

Easy observation of well plate and Easy check of specific cells

Product Items

Controller
(Control BOX +GUI software)

Well plate mountable XY stage

USB3 camera
CMOS camera (1/2″ ~1″)
or
sCMOS camera (Zyla 4.2)

Features

① convenient functions by integration of XY stage and camera
- Well number is indicated on screen and position destination by well number input
- Automatically, information of well# and positions are added into file name of captured image.
- Position memory function realizes easy fixed point observation of culturing.

② novel image processing functions are included
- Defect removal and median filter (3x3, 5x5, and 7x7) are included
- The following 5 color mapping are included for easy image recognition and image enhancing

Original image

jet   parula   hot   cool   prism

Enhanced image

③ external trigger control function is equipped
- 2 TTL level signal output ports are equipped for external device control such as illumination
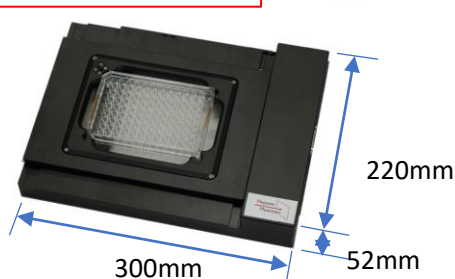
Specs

- Well number function is available for 24, 96 and 384 well plates, culturing dishes are mounted with adaptor.
- Adaptable microscope: Olympus CKX53*, IX-73, Nikon Ti, Nikon Ts2R, Zeiss PrimoVert
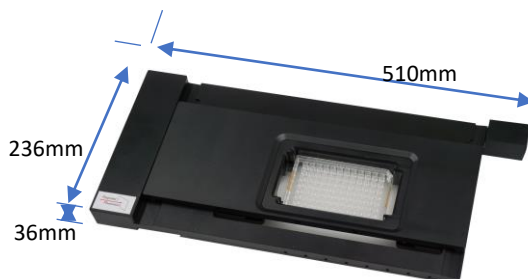- Sensor type: 1/2"~1.0" CMOS image sensor (monochrome or color)

Demo movie

Image enhancing with colormap

https://vimeo.com/576133232

XY stage variation

220mm
300mm
52mm

510mm
236mm
36mm

- XY stage for Olympus IX-73 and Nikon Ti / Ts2R

- XY stage for Evident (Olympus) CKX-53 and Zeiss PrimoVert

XY stage on Evident CKX53

XY stage on Zeiss PrimoVert

Pinpoint Photonics, Inc.

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GUI window

Select well plate

Position memory function for fixed position observation

XY stage position display and input area
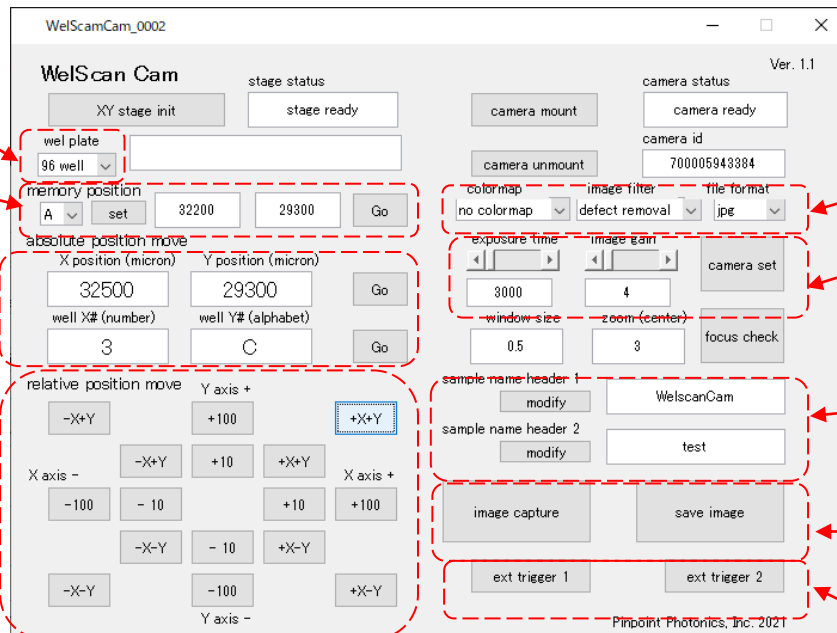Well number display and input area

XY stage movement (Relative)

Image processing selection and image file format setting
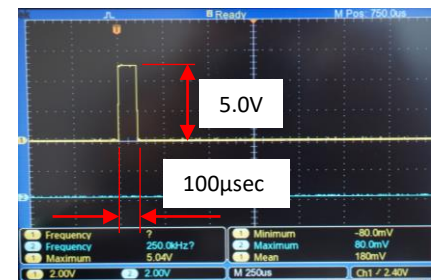
camera setting

set file name header1 and 2

Image capture and image save
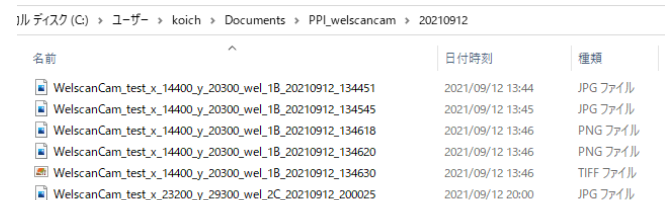
Trigger output 1 and 2

Trigger signal

- Pulse width:100 μ sec, pulse height: 5V (single pulse)
- We can support special trigger as an option (voltage range; -10-+10, with multiple and long pulse)
- Trigger signal has enough current to operate relay devices

5.0V

100μsec

Automatic filename construction

- Filename is created every time which is composed of header 1, header 2, XY stage position (um unit), well number, and saved time stamp.
- Saved folder is also automatically created with the name of operating date in user's document folder.

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