Colorwatcher, Colorimetric Array Imager





Colorwatcher is a compact and portable instrument designed for imaging colorimetric arrays (for example, DNA, protein biochips). The instrument by standard operates in brightfield and darkfield illumination modes with bottom and top illuminations respectively. The instrument is able to work with 96-well plate, a 12 x 8 well strip, as well as microscopic glasses (placed in a special adapter). The device is equipped with a highly sensitive CMOS camera. The instrument has an automatic mechanism of vessel ejection outside the body.

The instrument can operate with a 20V portable lithium-ion battery, which makes the device usable in the field studies or point-of-care.

The compact design allows the device to be carried in the hand luggage of the aircraft.



Software Features:

- Grid lay-outing (Manual and Automatic)
- Analysis of images by the average/median intensity of the spots
- Qualitative/quantitative analysis of the images
- Creating Qualitative/quantitative analysis assays
- Taking images in specified locations
- · Report exports to PDF, CSV, EXCEL
- · Control of camera exposure, gain, XYZ kinematics.

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| Specifications | |
|-----------------------------------|--|
| Illumination | Brightfield and darkfiled (bottom and top) |
| Vessels | 96 well plate/12 x 8 well strip/4 microscope slides |
| Light source | White LED |
| Lifetime of the light source | <10 000 hours |
| Data interface for unit controls | USB 2.0 |
| Camera | 3 MP, CMOS |
| Resolution | 6 μm per pixel |
| Data interface for camera control | USB 3.0 |
| Magnification | >10x |
| Image formats | png/bmp/tiff/jpg, 8/16 bit |
| Focus | Manual, adjustable via PC |
| Software | Included |
| PC requirements | Windows (x32/x64 bit) 7 SP1, 8.1, 10; Intel i5, 4GB RAM, SSD 500GB, 1 port USB 3.0, 1 port USB 2.0 |
| Size (W×D×H) | $330 \times 345 \times 150 \text{ mm}$ |
| Weight, w/o power supply | not more than 7 kg |
| Power supply | Input AC 100–240 V 50/60 Hz, Output DC 20-24 V, 2.5A |

Software interface, picture of a well of 96 well plate (brightfield)

