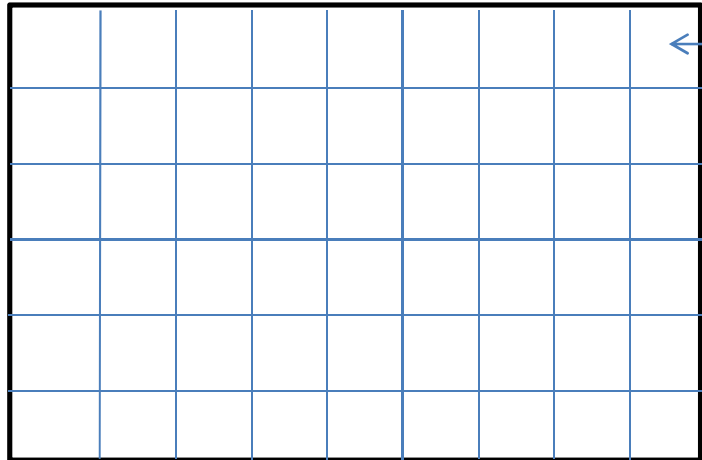


Pixel size

Camera chip (size of matrix on the chip: 2160 pixel x 2560 pixel)



← 1 pixel = 6,5 μ m

Normal dipping cap

6,5 μ m = 1 pixel

3,2 x 2 = 6,4 (magnification on the Body 3,2 x 2 objektiv+normal dipping cap)

Well....

$$\frac{1 \text{ pixel}}{\text{magnification}} = \frac{6,5 \mu\text{m}}{6,4} = 1,016 \mu\text{m}$$

Correcting dipping cap CDC

**CDC has a 7% high magnification compar to the normal dipping cap
(CDC = 2,152)**

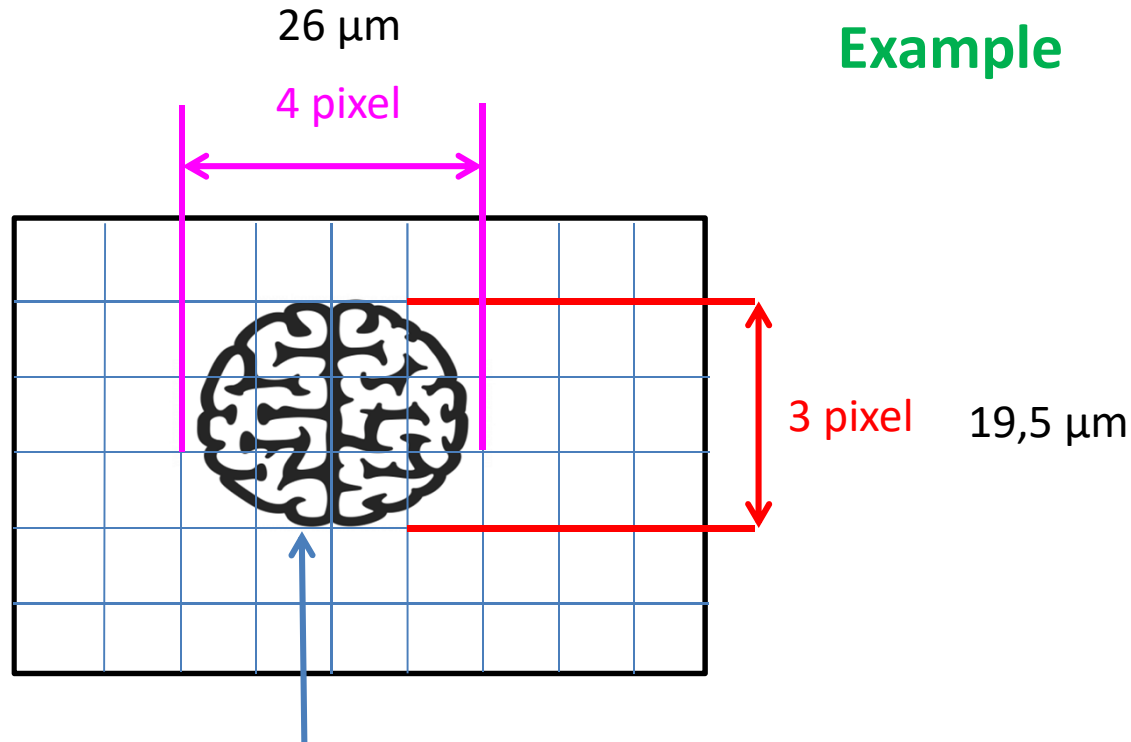
6,5 μ m = 1 pixel

3,2 x 2,152 = 6,8864 (magnification on the Body 3,2 x 2,152 objektiv+CDC)

Well....

$$\frac{1 \text{ pixel}}{\text{magnification}} = \frac{6,5 \mu\text{m}}{6,8864} = 0,944 \mu\text{m}$$

Example



Sample / structure

Normal dippig cap

$3,2 \times 2 = 6,4$ magnification

$$\frac{26 \mu m}{6,4} = 4,0625 \mu m$$

$$\frac{19,5 \mu m}{6,4} = 3,0468 \mu m$$

real size of object: $4,0625 \times 3,0468 \mu m$

1 pixel = $6,5 \mu m$

Size of sample on the chip

4 pixel $\times 6,5 \mu m = 26 \mu m$

3 pixel $\times 6,5 \mu m = 19,5 \mu m$

Correcting dippig cap CDC

$3,2 \times 2,152 = 6,8864$ magnification

$$\frac{26 \mu m}{6,8864} = 3,7755 \mu m$$

$$\frac{19,5 \mu m}{6,8864} = 2,8316 \mu m$$

real size of object: $3,7755 \times 2,8316 \mu m$

CDC has a 7% higher magnification