

Zeiss 710 Specifications

Lasers

405nm – 30mW
488nm (also 458nm and 514nm) - 25mW
561nm -15mW
633nm - 5mW

Objectives

Mag/ NA	Imm	Name	Coverslip	WD(mm)	Ring Color
10x/ 0.3	dry	EC Plan-NEOFLUAR	-	5.2	Yellow
25x/ 0.8	Oil/W*	LCI Plan-APOCHROMAT	+/-	0.55	Red/Green
40x/ 1.2	Water	C-APOCHROMAT	0.14-0.19**	0.28	Blue
63x/ 1.4	Oil	Plan-APOCHROMAT	+0.17	0.19	Black

*25x: Set to Red mark for oil, Green mark for water
**set for cover slip thickness. #1 Cover slip is 0.13 µm, #1.5 is 0.17 µm.
#1.5 cover slip is recommended, esp for oil immersion
WD = Working distance: how far the objective can focus past the coverslip

Focus

Coarse 1 revolution = 2mm
Fine 1 revolution = 0.2 mm (200µm)

Filters in Microscope – Axio Observer .Z1

Position	Set#	Ex	BS	Em
1		empty		
2	02	G365	FT 395	LP 420 (Long Pass)
3	09	BP 470/40	FT 510	LP 515
4	15	BP 546/12	FT 580	LP 590
5	POL	Polarizer for DIC		
6		Mirror for LSM		

TouchPad Settings:

	Stage Speed	Focus Speeds
10x	7	4
25x	5	3
40x	5	2
63x	3	1

Resolution

Collect 2-3 pixels over the smallest object you want to resolve

Maximum zoom (at 512x512) and minimum pixel size

10x Zoom 5.0 = pixel size ~ 0.30 µm (300 nm)
25x Zoom 6.5 = pixel size ~ 0.10 µm (100 nm)
40x Zoom 6.3 = pixel size ~ 0.08 µm (80 nm)
63x Zoom 4.0 = pixel size ~ 0.07 µm (70 nm)

To get smaller pixels but a larger field you can collect 1024 x 1024 pixels or use tiling.

