

Widefield 7 (August 2020)

Technical Specifications

- Leica LASX live cell imaging workstation on DMI8 inverted fluorescence microscope.
- Two cameras on side ports – optimising sensitivity or field of view & resolution:
 - Andor iXON 897 Ultra back-illuminated EMCCD (512x512 16µm pixels, 16 bit, 56 fps at full frame)
 - Andor Neo sCMOS (2560x2160; 6.5µm pixels, 12 or 16 bit, 30fps full frame)
- Phase-contrast and DIC available for all lenses.
- Adaptive Focus Control (AFC) for live cell applications ensures focus actively maintained during time-courses.
- Motorized stage - enables multi-position image acquisition.
- Leica LASX acquisition and archiving software. Automated multi-channel, multi-focus and multi-site image acquisition.
- Shuttering of incident light allows integrated fluorescence and transmitted light time-lapse imaging.
- Environmental control chamber (PeCon) for long-term temperature control and CO₂ enrichment.

Lenses

Lens	Dry/ Oil	Phase contrast	DIC	Working distance (mm)	N/A	Features	Serial number	Image size in microns	
								Neo	iXon
10x HC FL Plan	Dry	Yes	No	11	0.3		506507	1664 x 1403	1170 x 1170
20x HC PL Fluotar	Dry	Yes	Yes	6.9	0.4		506243	832 x 702	584 x 584
40x HC PL FLuotar	Dry	Yes	Yes	0.33 – 1.9	0.6	Coverglass thickness correction	506203	416 x 351	292 x 292
63x HCX PL Fluotar	Oil	Yes	Yes	0.19	1.25	Coverglass thickness correction	506186	264 x 223	185.4 x 185.4
100x HCX PL Fluotar	Oil	Yes	No	0.13	1.3		506197	166 x 140	116.8 x 116.8

Filter carousel

Position	Fluorophore (examples)	Excitation filter	Dichroic mirror	Emission filter
1	DAPI	350/50	400	BP 460/50
2	FITC	480/40	505	BP 527/30
3	QUAD		425, 505, 575, 660	
4	YFP	500/20	515	BP 535/30
5	Analyser	Used for DIC		
6	mCherry	560/40	590	630/75

External filters for use with QUAD cube

Fluorophore	Excitation Filter	Emission Filter
Dapi	350/50	455/50
GFP	490/20	525/36
RFP	555/25	605/52
DRAQ 5	645/30	705/72