Ultramicroscope Blaze (DAP)

INSTRUMENT SPECIFICATION SHEET

THE UNIVERSITY OF MELBOURNE | BIOLOGICAL OPTICAL MICROSCOPY PLATFORM

Location	N814, 8th Floor, Medical Building				
Stand	Ultramicroscope Blaze with zoom body (0.6x, 1x, 1.66x, 2.5x)				
Illumination	**Fluorescence**				
	Uni and bidirectional (1-6) lightsheet, thickness (4-24um) N.A. (0.0135-0.135)				
Lasers	**Diode Lasers**	**Maximum output**	**Emission filter**		
	405 nm	≥75mW	460/40 (440-480nm)		
	488 nm	≥75mW	525/50 (500-550nm)		
	561 nm	≥75mW	620/60 (590-650nm)		
	640 nm	≥65mW	680/30 (665-695 nm)		
	785 nm	≥75mW	805 Long pass		
Stage control	Motorized xyz stage				
Objectives Specification	**Magnification**	**NA**	**Working**	**Max resolut**	**Lens cap**
1.1x/0.1 MI PLAN (150-000-493)	1.1x (Final magnification 0.66-2.75)	0.1	17mm	4.8um	Aqueous = RI 1.33 – 1.49 Organic liquid = RI 1.5 – 1.57
4x/0.35 MI PLAN (150-001-654-6)	4 x (Final magnification 2.4-10)	0.35	16mm	1.3um	Water = RI 1.33 Aqueous = RI 1.45 Organic liquids = RI 1.56
12x/0.53 MI PLAN (150-000-495-7)	12x (Final magnification 7.2-30)	0.53	10.9 mm	0.5um	Water = RI 1.33 Aqueous = RI 1.45 Organic liquids = RI 1.56
Camera	**Type**	**Details**			
	Andor	Andor Zyla 4.2 Mpx sCMOS camera, 2048 x 2048 pixels, 6.5 µm, QE: 82% at Peak, 13.3 mm × 13.3 mm (18.8 mm diagonal). Max frame rate 100fps.			
Computer	4 GB graphics board, 64 GB RAM, 1 TB SSD, 10 TB HDD, 10 GBit T2				
Sample holders	Multiple sample holder for large or multiple specimens				
Cuvettes	**UltraMicroscope Blaze standard** Dimensions: 5.0 cm × 18.3 cm × 6.4 cm (497mL), Maximum imaging range :3.5 cm, 5.8 cm, 1.7 cm. **XXL chamber** Dimensions: 7.1 cm × 20.0 cm × 6.4 cm (715mL), Maximum imaging range: 4.4 cm, 7.0 cm, 1.7 cm) * only available with single lens				
Applications	Lightsheet microscopy of cleared tissue and model organisms				
File Saving	*.ome-tiff				
Extra features	UPS (Liebert GXT-MTPLUS On-Line 2000VA/1600W 230V LCD Tower)				