

多光子励起レーザー走査型顕微鏡 FV1200MPE (Olympus)

対物レンズ

正立型顕微鏡

No.	対物レンズ	倍率	開口数 (NA)	作動距離 (W.D.) (mm)	視野数 (FN) (mm)	カバーガラス厚 (mm)	イマージョン
1	XLPlan N 25x	25x	1.05	2	18	0-0.23	水浸
2	UPLSAPO 4x	4x	0.16	13	26.5	-	

倒立型顕微鏡

No.	対物レンズ	倍率	開口数 (NA)	作動距離 (W.D.) (mm)	視野数 (FN) (mm)	カバーガラス厚 (mm)	イマージョン
1	UPLSAPO 10x	10x	0.40	3.1	26.5	0.17	
2	UPLSAPO 20x	20x	0.75	0.6	26.5	0.17	
3	UPLSAPO 30x	30x	1.05	0.8	22	0.13-0.19	シリコーン浸

フィルター設定

★デフォルトセッティング

	Green/Red	Cyan/Yellow/Red
Filter1 (RXD1)	472/30 (SHG)	425/30 (SHG)
Filter2 (RXD2)	-	647/57 (RFP)
Filter3 (GaAsP1)	495-540 (GFP)	460-500 (CFP)
Filter4 (GaAsP2)	575-630 (RFP)	520-560 (YFP)

- * フィルター設定は正立・倒立とも同一
- * SHG: Second harmonic generation
- * RXD1: 通常の検出器
- * GaAsP: 高感度検出器

ワイドチューニングフェムト秒レーザー InSight DeepSee

Output Characteristics	InSight DeepSee
Tuning Range	680 nm–1300 nm
Average Power ²	600 mW at 700 nm 1.0 W at 900 nm 800 mW at 1000 nm 600 mW at 1200 nm 500 mW at 1300 nm
Dual Option ³	500 mW at 1041 nm
Pulse Width ^{4, 7}	<120 fs
Repetition Rate	80 MHz ±1 MHz
Noise ^{4, 5}	<0.5%
Stability ⁶	<±1%
Spatial Mode ⁴	TEM ₀₀ , M ² <1.2
Polarization ⁴	>500:1 horizontal
Beam Divergence, full angle ⁴	<1.5 mrad
Beam Diameter (1/e ²) ⁴	1.1 ±0.2 mm
Beam Roundness ⁴	0.8–1.2
Beam Pointing Stability	<350 µrad full range
Tuning Speed	>50 nm/sec full range
Dispersion Range ²	680 nm: -12,000 fs ² to -40,000 fs ² 800 nm: 0 fs ² to -25,000 fs ² 1050 nm: 0 fs ² to -10,000 fs ² 1300 nm: -3,000 fs ² to -8,000 fs ²
Environmental Requiren	
Altitude	Up to 2000 m
Temperature, Operating	20–25°C
Relative Humidity, Operating	Maximum 75% non-condensing up to 25°C
Temperature, Storage	15–35°C
Relative Humidity, Storage	<65% for 15–35°C
Cooled Water Temperature in Closed-loop Chiller	20°C typical ⁸

1. Due to our continous improvement program, specifications may change without notice
2. Specifications only apply to the wavelength noted
3. When configured with the Dual Option, average power specifications are reduced by 10%. Contact factory for additional specifications with this option.
4. Specification applies to 900 nm only
5. Specification represents rms noise measured in a 10 Hz to 10 MHz bandwidth
6. Percent power drift in any 2-hour period with less than ±1°C temperature change after a 1-hour warm up
7. A sech² pulse shape is used to determine the pulse width as measured with a Newport PulseScout[®]
8. Avoid obstructing the air exhaust grills which will result in the recirculation of hot exhaust air. Cooling air enters through the front panel and exits through the rear fan apertures.
9. The InSight DeepSee is a Class IV – High-Power Laser, whose beam is, by definition, a safety and fire hazard. Take precautions to prevent exposure to direct and reflected beams. Diffuse as well as specular reflections can cause severe skin or eye damage.