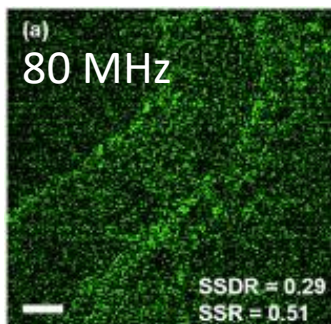


ALCOR PP



Variable repetition rate to further optimize 2P imaging

- Lower repetition rate to reduce thermal effects while maintaining high-level of 2P fluorescence
- Selectable repetition rate from 80 MHz (PP80) or 40 MHz (PP40)
- 920 or 1040/1064 nm, < 120 fs with HPC® Technology
- Easy upgrade to FLeX fiber delivery or Mini2P

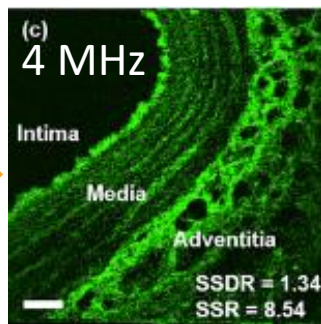


2P imaging at 80 MHz

Lower freq.



Higher SNR



2P imaging at 4 MHz, same average power

- Song, J. et al. *Sci Rep* **13**, 14244 (2023)

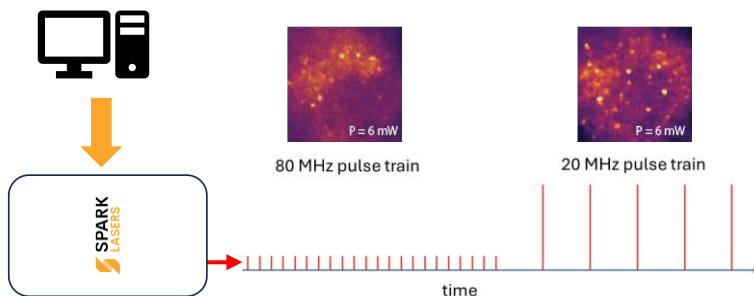
- Charan K. *Biomed Opt Express*. 2018 Apr 23;9(5):2304-2311

ALCOR PP

General specifications*

General	ALCOR 920-1 (version 9)	ALCOR 920-2 (version 9)	ALCOR 920-4 (version 9)	ALCOR 1064-2 or ALCOR 1040-2	ALCOR 1064-5 or ALCOR 1040-5
Wavelength	920 nm			1064 nm or 1040 nm	
Max. average power	1.5 W	2.5 W	4 W	2 W	5 W
Pulse duration with PP80 or PP40	< 120 fs		< 150 fs	< 120 fs	< 140 fs
PP80 : repetition rates	80 MHz/N (N:integer) : 80, 40, 26.7, 20, 16, ..., 3 MHz				
PP40 : repetition rates	40 MHz/N (N:integer) : 40, 20, 13.3, 10, 8, ..., 3 MHz				
Fixed energy at all frequencies	20 nJ	31.3 nJ	50 nJ	25 nJ	62.5 nJ
Group Delay Dispersion	Software controlled from 0 to -60 000 fs ²				
M ²	< 1.2		< 1.3	< 1.2	
Option XSight (Integrated AOM for fine power control, fast power modulation and frequency division)					
Transmission	> 85%				
ON/OFF response time	< 1 μs (rise or fall time < 200 ns)				
Analog modulation bandwidth	> 1 MHz (input : 0-5 Volts, 1 kOhm)				
Power control	Software controlled from 0 to 100%, alignment mode				
Frequency division	From 3 MHz down to 0 Hz				
Other options (depending on laser model)					
FLeX Fiber delivery	2 m fiber cable				
Mini2P	2.3 m of Mini2P fiber with collimator				
Multibeam MB2 or MB4	Multibeam splitter of 2 or 4 outputs, free space or with fiber (FLeX or Mini2P)				
GDD extension	Software controlled from 0 to -90 000 fs ² or up to +120 000 fs ²				

* This information is subject to modifications without prior notice



Courtesy of Antonio Lorca-Camara (Zong lab) at Kavli Institute