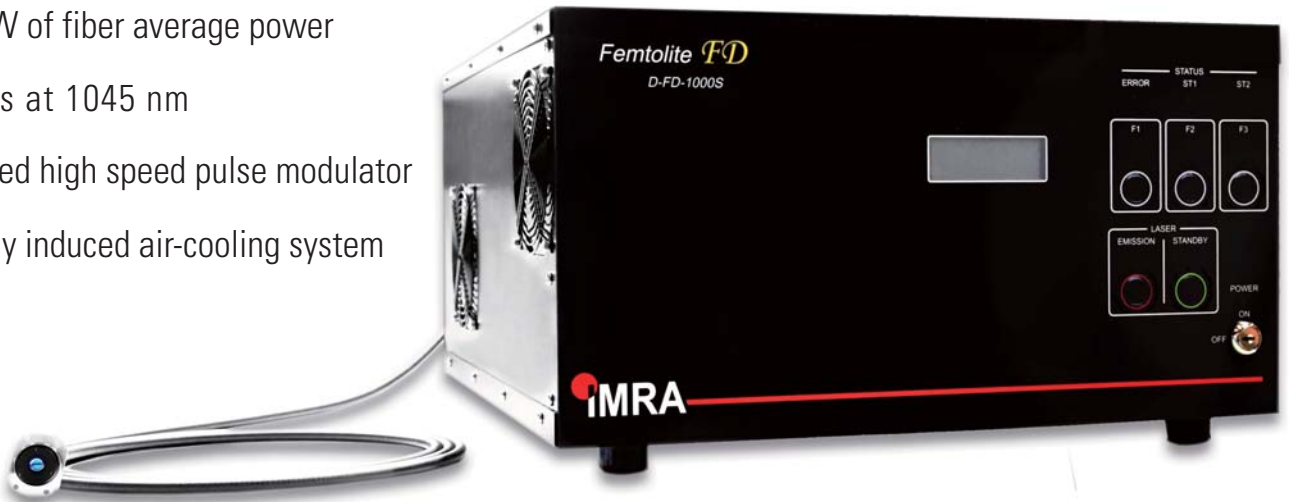


# Femtolute **FD/D-FD-1000S**

## Product Features

- Fiber-delivered fs pulse by 3-4 m of optical cable
- Over 1 W of fiber average power
- $\leq 200$  fs at 1045 nm
- Integrated high speed pulse modulator
- Naturally induced air-cooling system



## Specifications

Center Wavelength	<b>1045 <math>\pm</math> 5 nm</b>
Average Power	<b><math>\geq 1.0</math> W</b>
Pulse Duration	<b><math>\leq 200</math> fs: either at sample or fiber</b>
Repetition Rate	<b>50 <math>\pm</math> 5 MHz</b>
Power Modulation	<b>AOM included (Modulation speed: <math>&lt;1\mu</math>s)</b>
Beam quality ( $M^2$ )	<b><math>&lt; 1.3</math></b>
Cooling	<b>Air-cooling</b>
Laser Size	<b>500(W) x 540(D) x 270(H) mm</b>
Operational Temperature	<b>20-30°C</b>
Fiber Length	<b>3-4 m, <math>\Phi 7.7</math> mm flexible armored cable</b>

# Multiphoton Microscopy Applications

- Attaches directly to existing microscopes
- Ideal for excitation of YFP, RFP, RCaMP, and others for imaging at a depth  $> 500 \mu\text{m}$
- Integrated high speed blanking ( $< 1 \mu\text{s}$ ) and variable power function
- No need for an optical table

### Add-on feature for microscope

Detector for Confocal MS

Iris

Collimator

Microscope

Detector for MPM

Objective lens

Sample

Visible CW Laser

IMRA Laser

Microscope

IMRA laser

Visible CW laser

### Brain nerve cell of mouse (Td-Tomato)

	Femtolite FD/D-FD-1000S $\lambda = 1045 \text{ nm}, P_{\text{obj}} = 180 \text{ mW}$	Ti:S laser $\lambda = 920 \text{ nm}, P_{\text{obj}} = 330 \text{ mW}$
depth = 100 $\mu\text{m}$		
depth = 300 $\mu\text{m}$		
depth = 500 $\mu\text{m}$		

Courtesy of Prof. Miyawaki lab at RIKEN in Japan



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Specification and features may change without notice