FemtoBlade™ Femtosecond Micromachining Laser

Precision and flexibility for optimized processes.

The FemtoBlade laser system is a versatile tool for processing virtually any material with high quality and throughput.

Features
- Robust industrial design
- Integrated electronic controller
- High-volume manufacturing
- Easy integration
- Modular design for field serviceability
- High productivity:
    - Wide range of PRF from single shot to 16 MHz standard
    - FlexBurst™ technology

Options
- AccuTrig™ triggering function
- MegaBurst™ high-energy burst
- SYNC for high-speed line scanners

Applications
- OLED cutting
- PCB production
- Glass cutting, welding, scribing
- Sapphire cutting, scribing
- High-speed precision metal machining
- Selective thin-film ablation
- Metal drilling, cutting
- Medical device manufacturing

Specifications

Parameter*		
Output power	*High Power*	*Low Power** *
IR	200 W	45 W
Green	100 W	25 W
UV	50 W	12 W
Repetition rate	Single shot to 16 MHz	
Pulse width measured at 1030 nm	<500 fs ***	
M^2	1.3	
Spatial mode	TEM_{00}	
Polarization	>100:1 linear horizontal	
Laser Head		
Dimensions (L x W x H)	1004 x 389 x 239.5 mm (39.53 x 15.32 x 9.43 in)	505.5 x 389 x 239.5 mm (19.9 x 15.32 x 9.43 in)
Exit beam location and reference (H x W)	195 x 32.9 mm (7.68 x 1.30 in)	
Power Supply (fits 19-in rack)		
Dimensions (L x W x H)	388 x 475 x 43 mm (15.3 x 18.7 x 1.7 in)	

Note:
*   All specifications for 500 kHz, unless otherwise noted. Other repetition rate optimization available upon request
**   PRF is 1 MHz for Green and UV
*** IR is tunable from < 500 fs to > 5 ps

Regulatory Compliance

The products listed in this datasheet comply with the following regulatory standards, and display the certification and laser safety markings shown below. Contact your local Lumentum sales representative for additional information on specific products or configurations.

Regulatory Standards

IEC/EN/UL/CSA 61010-1
IEC/EN 60825-1
FCC 47 CFR Part 15 & 18 (Class A)

IEC/EN 61000-6-4 (Class A)
IEC/EN 61000-6-2

Safety certification markings
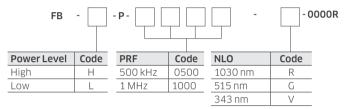

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

Laser safety warning label

Ordering Information

For more information on this or other products and their availability, please contact your local Lumentum account manager or Lumentum directly at customer.service@lumentum.com.

FB - ☐ - P - ☐ ☐ ☐ - ☐ - 0000R

Power Level	Code
High	H
Low	L

PRF	Code
500 kHz	0500
1 MHz	1000

NLO	Code
1030 nm	R
515 nm	G
343 nm	V

Accessories

Description	Product Code
AccuTrig	AT-0000R
MegaBurst	MB-0000R
SYNC	SC-0000R