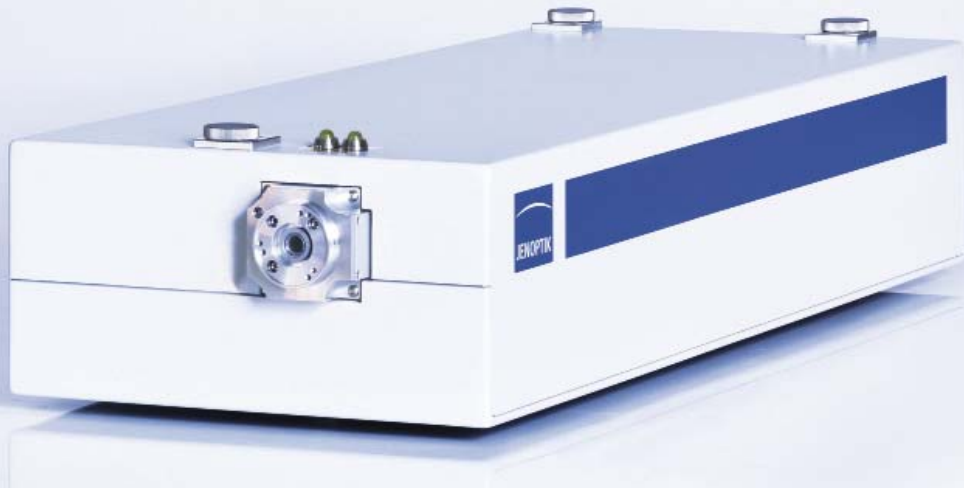




JenLas[®] disk IR50/IR70 | JenLas[®] disk IR70E IR-Disk Laser, Tunable Pulse Length



Advantages:

- Laserparameter adjustable
- Passively-cooled diodes
- High pulse repetition rate
- Fast AOM power control
- Disk laser design

Benefits:

- Optimized application
- Long Life Performance
- Fast processing
- Flexible application
- Superior beam quality over power range

Applications:

- Solar cell processing
 - MWT (Metal Wrap Through)
 - EWT (Emitter Wrap Through)
 - LFC (Laser Fired Contacts)
- Wafer dicing / scribing
- Microcutting (e.g. stents cutting)
- Microdrilling
- Microstructuring
- Engraving

JenLas® disk IR50/IR70 | JenLas® disk IR70E

IR-Disk Laser, Tunable Pulse Length

Specifications

Parameters	JenLas® disk IR50	JenLas® disk IR70	NEW: JenLas® disk IR70E
Laser		Disk laser	
Wave length		1030 nm	
Polarization		linear	
Beam quality		$M^2 \leq 1.2$	
Options		Aiming laser, beam expander	
Beam diameter		1.4 mm	

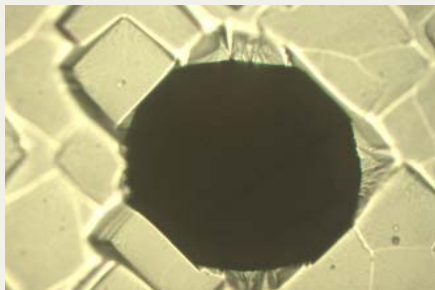
Q-switched operation basic (pulse length dependent on repetition rate)			
Output power	> 45 W @ 30 kHz	> 65 W @ 30 kHz	
Pulse energy	> 5 mJ @ 8 kHz	> 7 mJ @ 8 kHz	
Pulse repetition rate	8 ... 30 kHz	8 ... 35 kHz	
Pulse length (typ.)	800 ... 2000 ns	650 ... 1600 ns	

Q-switched operation advanced (pulse length independently adjustable)			
Output power	> 39 W @ 30 kHz	> 58 W @ 30 kHz	65 W
Pulse energy	> 4.3 mJ @ 8 kHz	> 6 mJ @ 8 kHz	6.5 mJ @ 10 kHz
Pulse repetition rate	8 ... 100 kHz	8 ... 100 kHz	10 ... 300 kHz
Pulse length	200 ... 1000 ns	200 ... 1100 ns	30 ... 300 ns

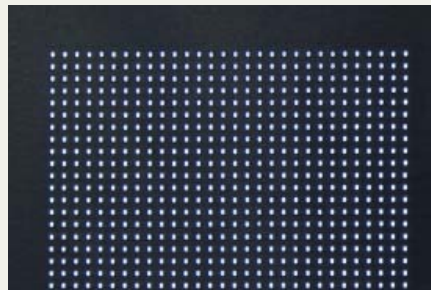
Mechanical specifications			
Laser head			
Dimensions (L x W x H)	865 mm x 340 mm x 184 mm		
Weight	approx. 45 kg		
Power supply			
Dimensions (W x H x D)	19" x 4 RU ¹⁾ x 500 mm		
Weight	approx. 15 kg		
Chiller			
Dimensions (W x H x D)	19" x 7 RU ¹⁾ x 650 mm		
Weight	approx. 65 kg		

¹⁾ RU = Rack Unit (1 RU = 1,75 inch = 44,45 mm)

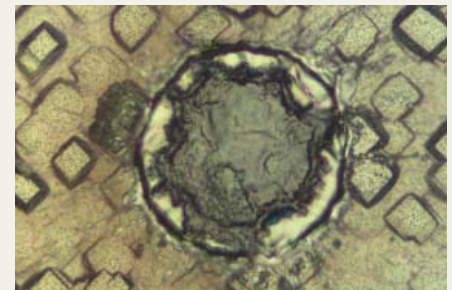
Applications



Drilling of Si wafer for back contact of solar cells (MWT technology)



Drilling microstrainer pattern in 0.3 mm stainless steel



LFC solar cell backside contacts, PVD metallisation on SiN passivation, contact \varnothing 85 μ m

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



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