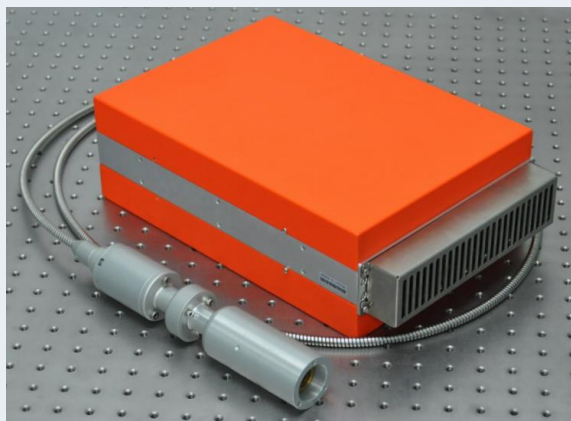


IFL-20P-SM 20W Single-Mode Pulse Fiber Laser

IFL-20P-SM (SM - series) is design with integrated cooling and iLuma's unique SRS suppression technology. The SM series pulse laser provides the user the ability to select pulse durations from 4ns to 350ns and has been designed to give optimal peak power and pulse energy over this range. The SM series stands out from the LM series as it delivers high pulse energies with excellent Single Mode output beam quality . This features makes the SM series fiber laser the choice laser source for novel applications requiring excellent Single Mode output beam performance.



Features:

- ✓ Integrated heatsink and cooling fans
- ✓ Peak power up to 20KW
- ✓ Rep Rate from 25KHz* to 1000 KHz
- ✓ Pulse Duration from 4ns to 350ns
- ✓ Beam Quality $M^2 < 1.3$
- ✓ Tunable Pulse Duration
- ✓ Tunable Onset of First pulse
- ✓ 2 years warranty
- ✓ Optimised Peak Power over all Rep Rates
- ✓ Integrated Isolator with Beam Delivery Optics
- ✓ SCSI Hardware and RS-232 Software Control
- ✓ Real time monitoring & Shutdown Protection

Applications:

- ✓ Metal Marking, Color Marking
- ✓ Black Marking on Anodized Al
- ✓ Ceramic Marking, hole drilling
- ✓ Laser Ablation Silver Nano-Wire
- ✓ IC & Poly-compounds Marking
- ✓ Laser Engraving Light Guide Plate
- ✓ Mono silicon, Poly silicon Processing
- ✓ Resistor Trimming
- ✓ Solar Cell Scribing
- ✓ ITOFilm removal
- ✓ Silver Through Hole drilling



*Single Shot and pulses on demand available

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Product Specification:

Product Name	15W SM	20W SM	30W SM*
Product Code	IFL-15P-SM-N-1	IFL-20P-SM-N-1	IFL-30P-SM-N-1
Average Power	15W	20W	30W
Central Wavelength	1060 ± 5 nm	1060 ± 5 nm	1060 ± 5 nm
Pulse Duration	4ns-200ns	4ns-200ns	4ns-350ns
Max Peak Power	15KW	20KW	25KW
Full Power of Rep rate	25 - 1000kHz	25 - 1000kHz	30 - 1000kHz
Output Power Stability	5%	5%	5%
Max Pulse Energy	0.65mJ	0.85mJ	1mJ
Beam size	5– 9mm	5– 9mm	5 – 9mm
M ²	≤ 1.3	≤ 1.3	≤ 1.3
polarization	Random	Random	Random
Length of cable	2 m	2 m	2 m
Weight of Module	< 6kg	< 6kg	< 6kg
Dimension of Module	360 x 210 x 100 mm	361 x 210 x 100 mm	362 x 210 x 100 mm
Operation Temp.	5°C - +55°C	5°C - +55°C	5°C - +55°C
Storage Temp.	−10°C - + 70°C	−10°C - + 70°C	−10°C - + 70°C

* will be launched at the end of year 2014

Product Order Code:

Co., Code	-	Average Power Code	-	Beam Quality Code	-	Pulse Feature Code	-	Wavelength Code	-	BET Code
IFL	-	15P	-	SM	-	N	-	1	-	A
	-	20P	-	LM	-	S	-	2	-	B
	-	30P	-	HM	-	P	-	3	-	C
	-	40P	-		-	C	-	4	-	D
		500C			-	L	-		-	E
Notes		15P-15W Pulse		SM-Single Mode		N- Pulse, 4ns-350ns,		1-1060nm		A- Without BET
		20P-20W Pulse		LM-Low Mode		S-Short Pulse, 1.5ns-10ns		2-1550nm		B- 3 X BET
		30P-30W Pulse		HM-Multi-Mode		P-ps Pulse, 700ps-10ns		3-532nm		C- 5X BET
		500C-500W CW				C-CW/Modulation		4-2000nm		D- 7X BET
						L-Smart ns Pulse				E- 9X BET
Example		Product Code		Description						
1		IFL-20P-LM-N-1-D		20W Pulse (1060nm), low mode , M2<2, Pulse Width 4ns-350ns, With 7X BET						
2		IFL-20P-SM-S-1-B		20W Pulse (1060nm), Single Mode, M2<1.3, Pulse Width 1.5ns-10ns, With 3X BET						
3		IFL-20P-SM-P-1-C		20W ps Pulse(1060nm), Single Mode, M2<1.3, Pulse Width 700ps-10ns, With 5X BET						

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