

脉冲光纤激光器

MOPA Fiber Laser

深圳市杰普特光电股份有限公司

SHENZHEN JPT OPTO-ELECTRONICS CO., LTD.



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深圳市杰普特光电股份有限公司
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公司简介 COMPANY PROFILE

深圳市杰普特光电股份有限公司(股票代码：688025)成立于2006年，是一家集研发、生产和销售激光器、激光/光学智能装备和光纤器件于一体的国家级高新技术企业。经过多年发展，公司搭建了国际化的研发、营销平台，产品和服务覆盖全球。公司以激光核心技术为基础，打造激光与光学、测试与测量、运动控制与自动化、机器视觉等技术平台，持续为客户创造价值。

杰普特坚持走自主知识产权的道路，已申请600余件专利及软件著作权，其中发明专利200余项。公司拥有一支由多位海外留学归国博士及国内知名大学博士、硕士为核心组成的优秀的顾问、管理、研发及销售团队，公司拥有博士30余人，硕士80余人，并且拥有先进的生产设备、配套齐全的研发测试设备。

作为中国首家商用脉宽可调高功率光纤激光器生产制造商，公司坚持“激光+”的定位，深耕核心激光技术，聚焦激光核心模块，围绕消费电子、泛半导体、新能源、生物医疗等重点领域，可为客户提供全品类、各波段、不同模式的光纤激光、固体激光、超快激光等产品，激光精密焊接、脆性材料精密加工、半导体模组检测及标刻、被动元器件、FPC/PCB打孔等专用设备技术解决方案，为先进制造提供动力之源。



Registered in 2006, Shenzhen JPT Opto-electronics Co., Ltd. is a National High-tech Enterprise. The company focuses on the R&D, production, sales, and technical services of lasers, intelligent equipments and optical devices. Based on laser technologies, JPT integrates leading technologies such as optics and measurement, motion control and machine vision, to create value for the customers.

JPT highly values intellectual property and has applied for more than 600 patents & software copyrights. The company is being led by the excellent consultants, management, R&D and sales team, where the key team members consist of several Ph.Ds and Masters from global famous universities and research institutes. JPT is equipped with advanced production equipment and a full range of R&D equipment.

As the first manufacturer of MOPA fiber lasers in China, JPT adheres to the positioning of "laser +", to develop core laser technologies and focus on the laser core modules. Surrounding the key fields of consumer electronics, pan-semiconductors, new energy and bio-medical, JPT provides customers with diverse series of fiber lasers, solid lasers and ultra-fast lasers of various wavelength and modes. JPT provides thorough laser solutions, including precision welding, precision cutting and drilling, inspection and marking of semiconductor modules, passive components, FPC/PCB drilling and etc.

2006 年成立
Registered in 2006

600+ 余件专利及著作权
More than 600 patents & software copyrights.

行业地位

INDUSTRY STATUS

激光技术领导者

The leading manufacturer of laser technology



MOPA脉冲光纤激光器
全球领先

Global leading manufacturer of
MOPA pulsed fiber laser



工业激光器
品类最全

The most complete variety
of industry lasers



激光精密切割、焊接技术
全球领先

Leading laser technology of
precision cutting and welding



产品介绍

PRODUCT PRESENTATION



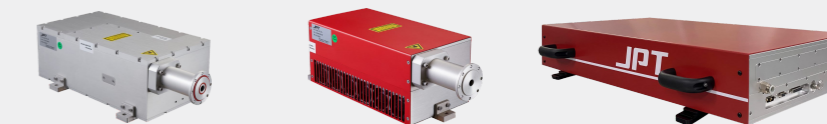
脉冲光纤激光器
MOPA Fiber Laser



连续光纤激光器
CW Fiber Laser



固体激光器
DPSS Laser



半导体激光器
Semiconduct Laser



M7 20W-100W

产品描述/ Product Description

杰普特M7系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过两项激光参数调整搭配,可实现恒定的高功率输出以及能适用于更广泛的标刻基材。此外,把调Q激光器的不可能变成MOPA的可能,更高的输出功率使其在高速打标的应用中优势尤为突出。

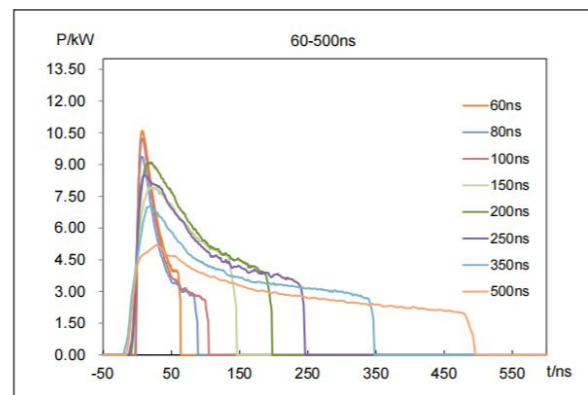
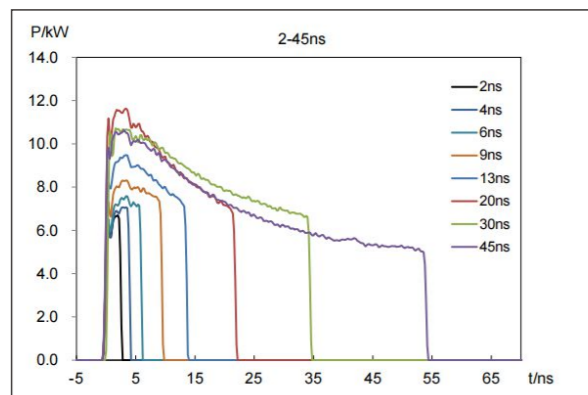


JPT M7 series high powered pulsed fiber lasers make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. The higher output power makes its advantages especially in high speed marking applications.

应用优势/ Application Advantages

- 薄板切割、焊接
Sheet metal cutting, Welding
- 激光除锈
Laser derusting
- 剥阳极、剥涂层
Metal surface processing, Peeling coating

- 雕刻、钻孔
Scribing, Drilling
- 表面处理
Surface treatment
- 飞行打标
Marking on fly



YDFLP-E2-100-M7-M-R 波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA			
		YDFLP-E2-20-M7-M-R	YDFLP-E-30-M7-S-R	YDFLP-E2-60-M7-M-R	YDFLP-E2-100-M7-M-R
系列型号 Product Model		YDFLP-E2-20-M7-M-R	YDFLP-E-30-M7-S-R	YDFLP-E2-60-M7-M-R	YDFLP-E2-100-M7-M-R
M ²		<1.4		<1.5	<1.6
铠缆长度 Armored Cable Length	m	2		3	
平均输出功率 Nominal Average Output Power	W	>20	>30	>60	>100
最大脉冲能量 Maximum Pulse Energy	mJ	0.8		2	1.5
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000			
脉冲宽度 Pulse Duration	ns	2-500			
输出功率不稳定性 Output Power Stability	%	<5			
冷却方式 Cooling Method		风冷			
供给电压 Supply DC Voltage (VDC)	V	24V			
供给电源功率 Power Supply	W	>120	>180	>330	>440
环境供给电流 Environmental Supply Current	A	>5	>7	>13	>18
中心波长 Central Emission Wavelength	nm	1064			
谱宽@3dB Emission Bandwidth@3dB	nm	<15			
偏振方向 Polarization Orientation		任意			
是否抗高反射 Anti-high Reflection		是			
光束直径 Output Beam Diameter	mm	7.0±1.0	7.0±0.5		
功率调节范围 Output Power Tuning Range	%	0~100			
工作温度范围 Operation Temperature	°C	0~40			
储存温度范围 Storage Temperature	°C	-10~60			
净重 N.W	kg	1.86	4.25	4.1	8.5
尺寸(L×W×H) Size(L×W×H)	mm	188*110*85.5	245*200*65	205*253.3*75	336*255*90

M7 200W

产品描述/ Product Description

杰普特M7系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过这两项激光参数调整搭配,可实现恒定的高功率输出,能适用于更广泛的加工应用。更高的输出功率使其在高速打标、薄金属切割、激光清洗等应用中优势尤为突出。

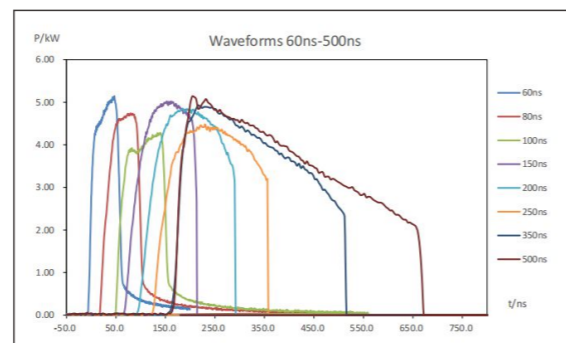
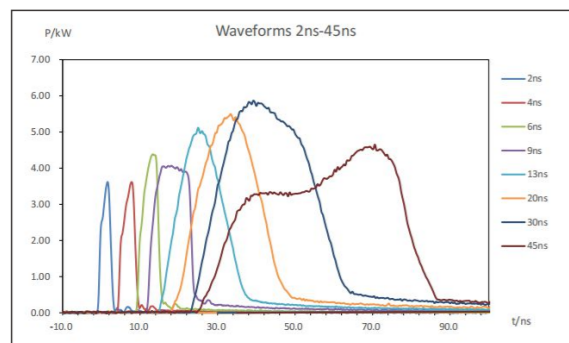


JPT M7 series laser make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. Higher power make it exceptionally good to do the high speed marking, sheet metal cutting, laser cleaning and other applications.

应用优势/ Application Advantages

- 激光除锈
Laser derusting
- 薄板切割、焊接
Sheet metal cutting, Welding
- 剥阳极、剥涂层
Metal surface processing, Peeling coating

- 表面处理
Surface treatment
- 雕刻、钻孔
Scribing, Drilling
- 飞行打标
Marking on fly



YDFLP-E2-200-M7-M-R波形图

规格指标/ Specification

参数单元 Parameter Unit	单位 Unit	MOPA		
		YDFLP-E-200-M7-M-R	YDFLP-E-200-M7-L-R	YDFLP-E2-200-M7-M-R
系列型号Product Model		YDFLP-E-200-M7-M-R	YDFLP-E-200-M7-L-R	YDFLP-E2-200-M7-M-R
M ²		<1.6	<1.8	<1.6
铠缆长度Armored Cable Length	m	5	3	5
平均输出功率Nominal Average Output Power	W	>200		
最大脉冲能量Maximum Pulse Energy	mJ	1.5	2	1.5
频率可调范围Pulse Repetition Rate Range	kHz	1-4000		
脉冲宽度Pulse Duration	ns	2-500		
输出功率不稳定性Output Power Stability	%	<5		
冷却方式Cooling Method		风冷		
供给电压Supply DC Voltage (VDC)	V	48V		
供给电源功率Power Supply	W	>950		>830
环境供给电流Environmental Supply Current	A	>15		>14.6
中心波长Central Emission Wavelength	nm	1064		
谱宽@3dB Emission Bandwidth@3dB	nm	<15		
偏振方向Polarization Orientation		任意		
是否抗高反射Anti-high Reflection		是		
光束直径Output Beam Diameter	mm	7.0±1.0	8.0±1.0 或 11.0±1.0	7.0±1.0
功率调节范围Output Power Tuning Range	%	0~100		
工作温度范围Operation Temperature	°C	0~40		
储存温度范围Storage Temperature	°C	-10~60		
净重N.W	kg	25.3		10.5
尺寸(L×W×H)Size(L×W×H)	mm	483*351*133		340*265*100

M7 300W

产品描述/ Product Description

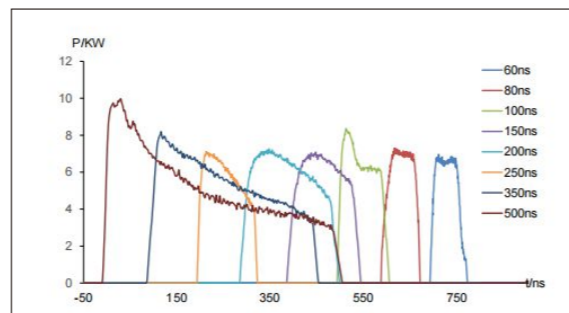
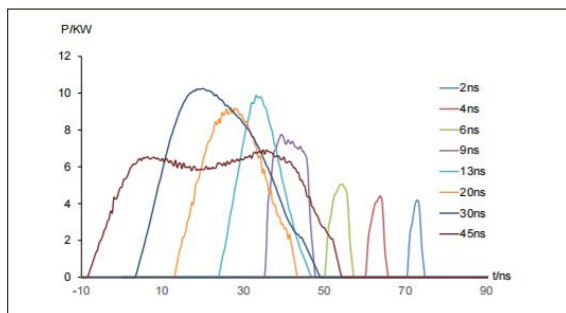
杰普特M7系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过这两项激光参数调整搭配,可实现恒定的高功率输出,能适用于更广泛的加工应用。更高的输出功率使其在高速打标、薄金属切割、激光清洗等应用中优势尤为突出。



JPT M7 series laser make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. Higher power make it exceptionally good to do the high speed marking, sheet metal cutting, laser cleaning and other applications.

应用优势/ Application Advantages

- 激光除锈
Laser derusting
- 表面处理
Surface treatment
- 薄板切割、焊接
Sheet metal cutting, Welding
- 雕刻、钻孔
Scribing, Drilling
- 剥阳极、剥涂层
Metal surface processing, Peeling coating
- 飞行打标
Marking on fly



YDFLP-E-300-M7-L-R波形图

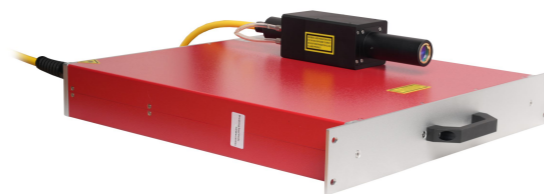
规格指标/ Specification

参数单元 Parameter Unit	单位 Unit	MOPA	
系列型号Product Model		YDFLP-E-300-M7-M-R	YDFLP-E-300-M7-L-R
M ²		<1.6	<1.8
铠缆长度Armored Cable Length	m	5	3
平均输出功率Nominal Average Output Power	W	>300	
最大脉冲能量Maximum Pulse Energy	mJ	1.5	2.3
频率可调范围Pulse Repetition Rate Range	kHz	1-4000	
脉冲宽度Pulse Duration	ns	2-500	
输出功率不稳定性Output Power Stability	%	<5	
冷却方式Cooling Method		风冷	
供给电压Supply DC Voltage (VDC)	V	48V	
供给电源功率Power Supply	W	>1400	
环境供给电流Environmental Supply Current	A	>27	
中心波长Central Emission Wavelength	nm	1064	
谱宽@3dB Emission Bandwidth@3dB	nm	<15	
偏振方向Polarization Orientation		任意	
是否抗高反射Anti-high Reflection		是	
光束直径Output Beam Diameter	mm	7.0±1.0	8.0±1.0 或 11.0±1.0
功率调节范围Output Power Tuning Range	%	0~100	
工作温度范围Operation Temperature	°C	0~40	
储存温度范围Storage Temperature	°C	-10~60	
净重N.W	kg	25.3	
尺寸(L×W×H)Size(L×W×H)	mm	483*351*133	

M7 500W-1000W

产品描述/ Product Description

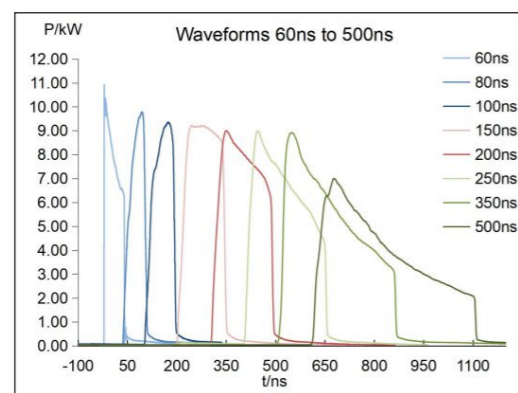
杰普特M7系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过两项激光参数调整搭配,可实现恒定的高峰值功率输出以及能适用于更广泛的标刻基材。此外,把调Q激光器的不可能变成MOPA的可能,更高的输出功率使其在高速打标的应用中优势尤为突出。



JPT M7 series high powered pulsed fiber lasers make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. The higher output power makes its advantages especially in high speed marking applications.

应用优势/ Application Advantages

- 薄板切割、焊接
Sheet metal cutting, Welding
- 雕刻、钻孔
Scribing, Drilling
- 激光除锈
Laser derusting
- 表面处理
Surface treatment
- 剥阳极、剥涂层
Metal surface processing, Peeling coating
- 飞行打标
Marking on fly



YDFLP-1000-M7-M-R-W波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA	
系列型号 Product Model		YDFLP-500-M7-M-R-W	YDFLP-1000-M7-M-R-W
M ²		<1.7	<2
铠缆长度 Armored Cable Length	m	5	
平均输出功率 Nominal Average Output Power	W	>500	>1000
最大脉冲能量 Maximum Pulse Energy	mJ	1.5	
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000	
脉冲宽度 Pulse Duration	ns	30-500	60-500
输出功率不稳定性 Output Power Stability	%	<5	
冷却方式 Cooling Method		水冷	
供给电压 Supply DC Voltage (VDC)	V	48	220
最大消耗功率 Maximum Power Consumption	W	<1700	<3500
环境供给电流 Environmental Supply Current	A	>35	>16
中心波长 Central Emission Wavelength	nm	1064	
谱宽@3dB Emission Bandwidth@3dB	nm	<20	
偏振方向 Polarization Orientation		任意	
是否抗高反射 Anti-high Reflection		是	
光束直径 Output Beam Diameter	mm	7.0±1.0	
功率调节范围 Output Power Tuning Range	%	0~100	
工作温度范围 Operation Temperature	°C	10~40	
储存温度范围 Storage Temperature	°C	-10~60	
净重 N.W	kg	19.8	40
尺寸(L×W×H) Size(L×W×H)	mm	482*470*70	483*598*140

M8 20W-50W

产品描述/ Product Description

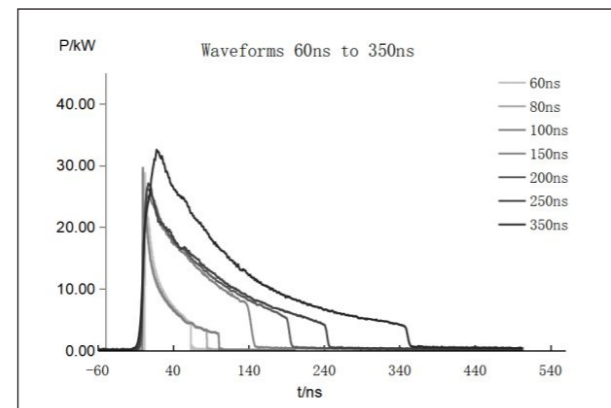
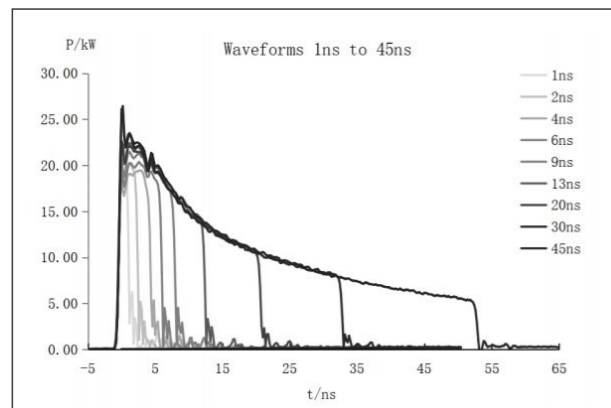
杰普特M8系列激光器采用主振荡功率放大的MOPA结构，可支持脉冲宽度与脉冲频率独立可调。在保持原有系列的性能基础上，M8系列对脉冲峰值功率与光束质量进行了重点优化，在高功率工作条件下可保持优异的光束质量，峰值功率最高大于20kW，特别适用于玻璃打孔等对峰值功率及亮度有较高要求的应用。



JPT M8 series laser adopts MOPA (Main Oscillation Power Amplification) structure, which can support independent adjustment of pulse width and pulse repetition rate. The M8 series optimizes the pulse peak power and beam quality on the basis of maintaining the performance of the original series. It can maintain excellent beam quality under high-power working conditions, and the maximum peak power is greater than 20kW. It is especially suitable for glass drilling and other applications that have high requirements on peak power and brightness.

应用优势/ Application Advantages

- 玻璃钻孔
Glass drilling
- 薄板切割
Sheet metal cutting
- 薄板钻孔
Sheet metal drilling
- 剥阳极、剥涂层
Metal surface processing, Peeling coating



YDFLP-50-M8波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA	
系列型号 Product Model		YDFLP-20-M8	YDFLP-50-M8
M ²		1.4	<1.4
平均输出功率 Nominal Average Output Power	W	>20	>50
最大脉冲能量 Maximum Pulse Energy	mJ	1.1	4
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000	
脉冲宽度 Pulse Duration	ns	1-350	
输出功率不稳定性 Output Power Stability	%	<5	
冷却方式 Cooling Method		风冷	
供给电压 Supply DC Voltage (VDC)	V	100-240	24
最大消耗功率 Maximum Power Consumption	W	<120	<220
环境供给电流 Environmental Supply Current	A	2	>10
中心波长 Central Emission Wavelength	nm	1064	
谱宽@3dB Emission Bandwidth@3dB	nm	<15	
偏振方向 Polarization Orientation		任意	
是否抗高反射 Anti-high Reflection		是	
光束直径 Output Beam Diameter	mm	7.0±0.5	7.0±1.0
功率调节范围 Output Power Tuning Range	%	0~100	
工作温度范围 Operation Temperature	°C	0~40	10~40
储存温度范围 Storage Temperature	°C	-10~60	
净重 N.W	kg	2.7	4
尺寸(L×W×H) Size(L×W×H)	mm	272*105*76.2	337*130*100

M8 100W/250W

产品描述/ Product Description

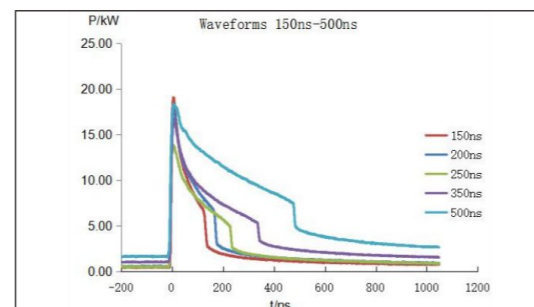
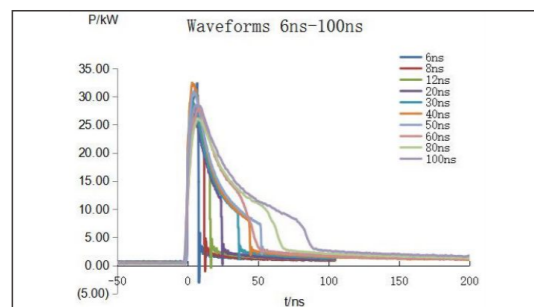
杰普特M8系列激光器采用主振荡功率放大的MOPA结构，可支持脉冲宽度与脉冲频率独立可调。在保持原有系列的性能基础上，M8系列对脉冲峰值功率与光束质量进行了重点优化，在高功率工作条件下可保持优异的光束质量，峰值功率最高大于100kW，特别适用于玻璃打孔等对峰值功率及亮度有较高要求的应用。



JPT M8 series laser adopts MOPA (Main Oscillation Power Amplification) structure, which can support independent adjustment of pulse width and pulse repetition rate. The M8 series optimizes the pulse peak power and beam quality on the basis of maintaining the performance of the original series. It can maintain excellent beam quality under high-power working conditions, and the maximum peak power is greater than 100kW. It is especially suitable for glass drilling and other applications that have high requirements on peak power and brightness.

应用优势/ Application Advantages

- 玻璃钻孔
Glass drilling
- 薄板切割
Sheet metal cutting
- 薄板钻孔
Sheet metal drilling
- 剥阳极、剥涂层
Metal surface processing, Peeling coating



250-M8-M-R波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA	
系列型号 Product Model		YDFLP-100-M8-S-R	YDFLP-250-M8-M-R
M ²		<1.35	<1.6
平均输出功率 Nominal Average Output Power	W	>100	>250
最大脉冲能量 Maximum Pulse Energy	mJ	0.58mJ@12ns	1.8mJ@500ns
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000	
脉冲宽度 Pulse Duration	ns	6-45	6-500
输出功率不稳定度 Output Power Stability	%	<5	<2
冷却方式 Cooling Method		水冷	
供给电压 Supply DC Voltage (VDC)	V	48V	
最大消耗功率 Maximum Power Consumption	W	<480	<800
环境供给电流 Environmental Supply Current	A	>10	>20
中心波长 Central Emission Wavelength	nm	1064	
谱宽@3dB Emission Bandwidth@3dB	nm	<20	
偏振方向 Polarization Orientation		任意	
是否抗高反射 Anti-high Reflection		是	
光束直径 Output Beam Diameter	mm	3.0±0.5	6.0±1.0
功率调节范围 Output Power Tuning Range	%	0~100	
工作温度范围 Operation Temperature	°C	10~40	0~40
储存温度范围 Storage Temperature	°C	-10~60	
净重 N.W	kg	10.2	16.5
尺寸(L×W×H) Size(L×W×H)	mm	450*235*70	433*280*75

CL 100W-200W

产品描述/ Product Description

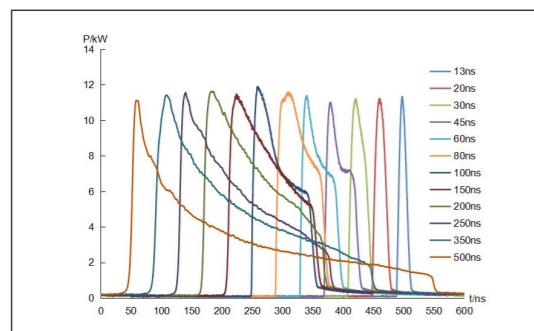
杰普特CL系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过两项激光参数调整搭配,可实现恒定的高功率输出,能适用于更广泛的标刻基材。CL系列采用了轻量化激光输出头,同时保持了激光器抗高反的优异性能,在手持或机器人激光清洗方面具有突出优势。



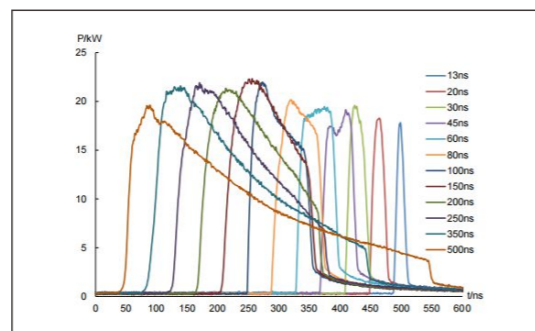
JPT CL series laser make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. CL series laser designed with ultra-light output connector, and still be anti-high reflection, definitely be the best option for handheld or robot cleaning system.

应用优势/ Application Advantages

- 激光除漆
Laser paint stripping
- 激光除锈
Laser derusting
- 薄板焊接
Sheet metal welding
- 剥阳极、剥涂层
Metal surface processing, Peeling coating
- 焊前预处理
Pre-welding treatment
- 手持打标
Hand-held marking



YDFLP-CL2-200-1-A波形图



YDFLP-CL2-200-5-A波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA		
		YDFLP-CL2-100-1-A	YDFLP-CL2-200-1-A	YDFLP-CL2-200-5-A
系列型号 Product Model		YDFLP-CL2-100-1-A	YDFLP-CL2-200-1-A	YDFLP-CL2-200-5-A
M ²		<2	<1.5	<5
铠缆长度 Armored Cable Length	m	5		
平均输出功率 Nominal Average Output Power	W	>100	>200	
最大脉冲能量 Maximum Pulse Energy	mJ	1.5	2	5
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000	1-3000	
脉冲宽度 Pulse Duration	ns	2-500	13-500	
输出功率不稳定性 Output Power Stability	%	<5		
冷却方式 Cooling Method		风冷		
供给电压 Supply DC Voltage (VDC)	V	48V		
最大消耗功率 Maximum Power Consumption	W	<400	<700	
环境供给电流 Environmental Supply Current	A	>8	>14.6	
中心波长 Central Emission Wavelength	nm	1064		
谱宽@3dB Emission Bandwidth@3dB	nm	<15		
偏振方向 Polarization Orientation		任意		
是否抗高反射 Anti-high Reflection		是		
光束直径 Output Beam Diameter	mm	4.0±0.5 或 7.0±0.5	6.0±1.0	7.0±1.0
功率调节范围 Output Power Tuning Range	%	0~100		
工作温度范围 Operation Temperature	°C	0~40		
储存温度范围 Storage Temperature	°C	-10~60		
净重 N.W	kg	9	8.9	
尺寸(L×W×H) Size(L×W×H)	mm	335*255*90		340*265*100

CL 300W

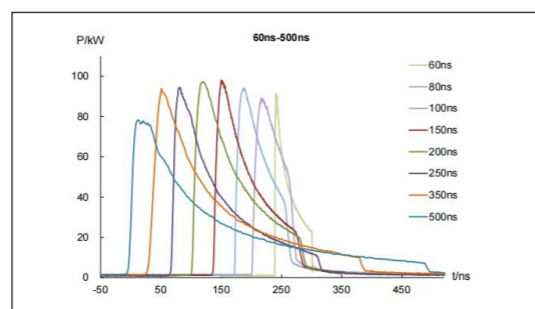
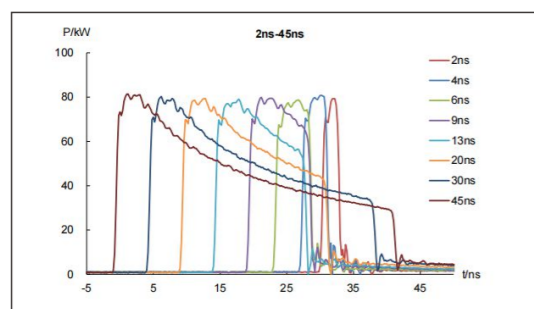
产品描述/ Product Description

杰普特CL系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过两项激光参数调整搭配,可实现恒定的高功率输出,能适用于更广泛的标刻基材。CL系列采用了轻量化激光输出头,同时保持了激光器抗高反的优异性能,在手持或机器人激光清洗方面具有突出优势。

JPT CL series laser make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. CL series laser designed with ultra-light output connector, and still be anti-high reflection, definitely be the best option for handheld or robot cleaning system.

应用优势/ Application Advantages

- 激光除漆
Laser paint stripping
- 剥阳极、剥涂层
Metal surface processing, Peeling coating
- 激光除锈
Laser derusting
- 焊前预处理
Pre-welding treatment
- 薄板焊接
Sheet metal welding
- 手持打标
Hand-held marking



YDFLP-CL-300-10-W波形图

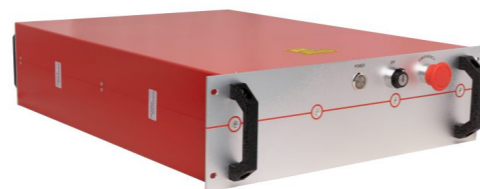
规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA			
系列型号 Product Model		YDFLP-CL-300-1-A	YDFLP-CL-300-5-A	YDFLP-CL-300-10-A	YDFLP-CL-300-10-W
M ²		2	5	12	10
铠缆长度 Armored Cable Length	m	5			
平均输出功率 Nominal Average Output Power	W	>300			
最大脉冲能量 Maximum Pulse Energy	mJ	1.5	5	12.5	
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000			
脉冲宽度 Pulse Duration	ns	2-500			
输出功率不稳定性 Output Power Stability	%	<5			
冷却方式 Cooling Method		风冷			水冷
供给电压 Supply DC Voltage (VDC)	V	48V			
最大消耗功率 Maximum Power Consumption	W	<1200			<1400
环境供给电流 Environmental Supply Current	A	>25			>30
中心波长 Central Emission Wavelength	nm	1064			
谱宽@3dB Emission Bandwidth@3dB	nm	<15			
偏振方向 Polarization Orientation		任意			
是否抗高反射 Anti-high Reflection		是			
光束直径 Output Beam Diameter	mm	7.0			
功率调节范围 Output Power Tuning Range	%	0~100			
工作温度范围 Operation Temperature	°C	0~40			
储存温度范围 Storage Temperature	°C	-10~60			
净重 N.W	kg	25			17.6
尺寸(L×W×H) Size(L×W×H)	mm	450*375*130			515*380*78

CL 500W-1000W

产品描述/ Product Description

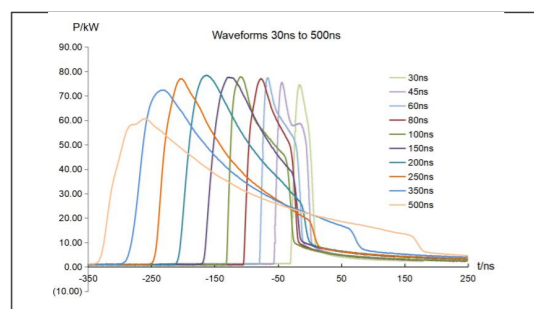
杰普特CL系列是采用直接电调制半导体激光器作为种子源(MOPA)方案的高功率光纤激光器,具有完美的激光特性和良好的脉冲形状控制能力。与调Q光纤激光器相比,MOPA光纤激光器脉冲频率和脉冲宽度是独立可控的,通过两项激光参数调整搭配,可实现恒定的高峰值功率输出,能适用于更广泛的标刻基材。CL水冷系列采用功率合束的方案,具有脉冲能量高,输出光斑能量分布均匀的优势,是一款理想且高效的激光清洗光源。



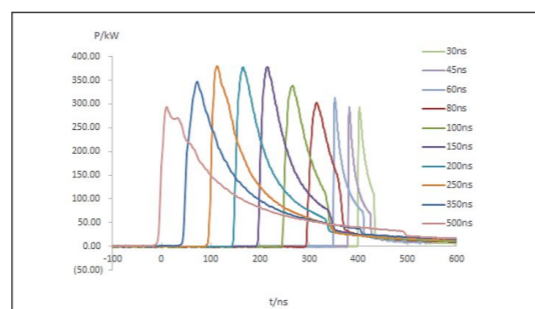
JPT CL series laser make use of master oscillator power amplifier (MOPA) configuration, and show excellent laser performance as well as high level of temporal pulse shaping controllability. As compared to the Q-switching technology, the pulse repetition frequency (PRF) and pulse width can be controlled independently in MOPA configuration, through adjusting different combination of the above parameters, the peak power of laser can be well maintained. And enable JPT laser suitable for more material processing which Q-switch limited. The water cooling CL series laser with multi-module combined design, available for high pulse energy and well-distributed beam power, definitely be the best option for laser cleaning system.

应用优势/ Application Advantages

- 激光除漆
Laser paint stripping
- 剥阳极、剥涂层
Metal surface processing, Peeling coating
- 激光除锈
Laser derusting
- 焊前预处理
Pre-welding treatment
- 薄板焊接
Sheet metal welding
- 手持打标
Hand-held marking



YDFLP-CL-1000-15-W波形图

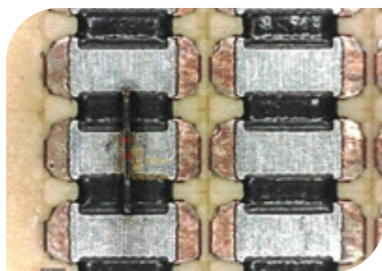


YDFLP-CL-1000-50-W波形图

规格指标/ Specification

参数单元 Parameter Unit	单位	MOPA			
系列型号 Product Model		YDFLP-CL-500-15-W	YDFLP-CL-500-50-W	YDFLP-CL-1000-15-W	YDFLP-CL-1000-50-W
M ²		3.7	9	3.7	9
铠缆长度 Armored Cable Length	m	10			
平均输出功率 Nominal Average Output Power	W	500		1000	
最大脉冲能量 Maximum Pulse Energy	mJ	15	50	15	50
频率可调范围 Pulse Repetition Rate Range	kHz	1-4000			
脉冲宽度 Pulse Duration	ns	30-500			
输出功率不稳定性 Output Power Stability	%	<5			
冷却方式 Cooling Method		水冷			
供给电压 Supply DC Voltage (VDC)	V	220			
最大消耗功率 Maximum Power Consumption	W	2000		4000	
环境供给电流 Environmental Supply Current	A	>10		>20	
中心波长 Central Emission Wavelength	nm	1064			
谱宽@3dB Emission Bandwidth@3dB	nm	<20			
偏振方向 Polarization Orientation		任意			
功率调节范围 Output Power Tuning Range	%	0~100			
工作温度范围 Operation Temperature	°C	0~40			
储存温度范围 Storage Temperature	°C	-10~60			
净重 N.W	kg	36		40	
尺寸(L×W×H) Size(L×W×H)	mm	440*598*140			

产品应用 Applications



金属电阻切割
Metal Resistance Cutting



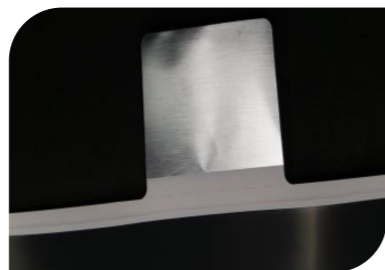
塑胶标识
Plastic Marking



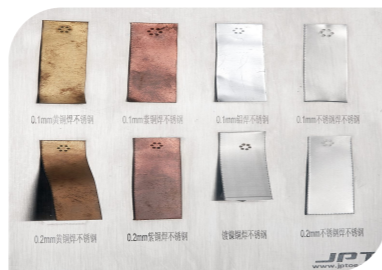
玻璃钻孔
Glass drilling



不锈钢打彩
Stainless Color Printing



极片切割
Battery Electrode Cutting



金属薄片焊接
Thin Metal Sheet Welding



金属清洗
Laser cleaning



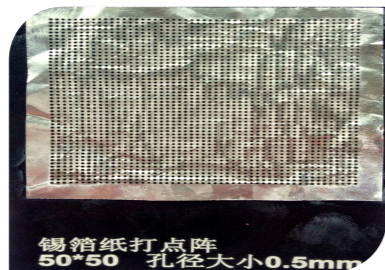
车架钢深雕
frame steel deep carving



塑胶按键剥漆
Plastic Keypad Paint Removal



氧化铝打亮面
Aluminum oxide polished surface



锡箔切孔
Aluminum Foil Drilling



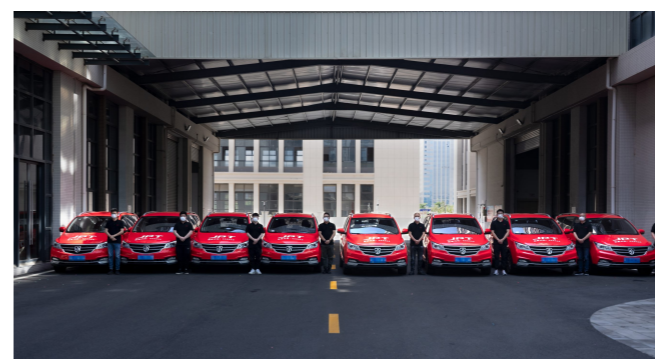
氧化铝打黑
Alumina Black Marking

激光维修中心 Laser Repair Center

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维修 Maintenance



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JPT



企业使命 MISSION

推动智造进步，共创美好未来
Advancing Intelligent Manufacturing for a Common Bright Future.



企业愿景 VISION

以激光核心技术驱动，持续为客户创造价值
Drive with Core Technologies of Laser, Continuously Create Value for Customers.



核心价值观 VALUE

诚信创新、心怀梦想、追求卓越、协同共赢
Innovate with Integrity, Dream Big, Pursue Excellence, Collaborate to Succeed