



高能脉冲光纤激光器

STM10和STM20光纤激光器通过光纤传输，适合于激光打标、雕刻、微加工和表面处理。脉冲重复率和输出激光功率由8位TTL信号或USB控制。激光器可以包括隔离器、扩束镜、聚焦镜和红光指示。



型号		STM10	STM20
工作方式		脉冲	脉冲
输出平均功率	W	10	20
中心激光波长	μm	1.06	1.06
脉冲能量	mJ	最大0.5	最大1
在峰值功率50%时脉宽	ns	100*	100*
在峰值功率10%时脉宽	ns	160	160
脉冲频率	kHz	20 - 100	20 - 100
峰值功率	kW	Up to 5	Up to 10
激光光束		高斯	高斯
输出准直光束直径	μm	600	600
扩束后光束直径（可选项）	mm	7 至 9	7 至 9
聚焦镜（可选项）	mm	100	100
电源功率	W	250	250
输入电压	VDC	24	24
工作温度	$^{\circ}\text{C}$	5 - 40	
储存温度	$^{\circ}\text{C}$	-20 - 55	
重量	kg	<10	
外形尺寸 L x W x H	mm	215 x 286 x 95	



高频脉冲光纤激光器

STM20HF 光纤激光器通过光纤传输，特别适合于高速去除表面油漆、氧化层、镀膜层等表面处理。用160mm聚焦镜可以取得30um的焦距光斑直径。脉冲重复率和输出激光功率由8位TTL信号或USB控制。激光器可以包括隔离器、扩束镜、聚焦镜和红光指示。



型号	Unit	STM20HF
工作方式		脉冲
中心激光波长	μm	1.06
输出平均功率	W	20
脉宽	ns	20
脉冲频率	kHz	100 至 500
峰值功率	kW	7
脉冲能量	mJ	0.2
激光光束		高斯
准直光束直径	mm	0.6 至 9
电源功率	W	<250
输入电压	VDC	24
工作温度	°C	5 至 40
储存温度	°C	-20 至 55
外形尺寸 (L x W x H)	mm	286 x 215 x 95
重量	kg	<10



ST 系列光纤激光器

光纤激光器分为连续和脉冲光纤激光器，平均输出功率高达100W，在脉冲宽度小于30ns的情况下，输出高达25kW的峰值功率。具有接近衍射极限的高光束质量 $M^2 < 1.5$ 。同时，该系列激光器的另一个关键特征是在脉冲模式或连续模式下均可工作。激光脉冲的重复频率与输出功率可通过8位TTL信号、RS232或者模拟信号进行控制。我们的专利技术“Injection Technology注入技术”使得我们的产品能够采用高可靠性的大面积激光二极管泵浦源，从而实现了产品的高性价比与免维护操作。高光束质量与功率稳定性使得我们的光纤激光器能够满足很多应用领域的要求。

在激光器外形结构上，我们的光纤激光器分为OEM型和整机型。OEM型光纤激光器是专为OEM客户设计的光纤激光器，体积小，特别适合激光设备制造公司，非常方便地将我们的光纤激光器集成到激光设备里，如激光打标机、焊接机。整机型光纤激光器特别适合大专院校、研究单位使用，直接用市电就可以操作。

全光纤结构设计保证了激光器的高可靠性，而无需任何光学元件进行准直调整。系统的集成化设计让客户使用更加方便，为各种工业应用提供了理想的解决方案。



特点

- 可达1.0mJ的脉冲能量
- 低于30ns的脉宽
- 可更换的泵浦源
- 可选的连续工作模式
- 光功率反馈监测
- 后向反射输出隔离器
- 高可靠性的激光二极管泵浦源
- 高光束质量 $M^2 < 1.5$
- 免维护操作
- 紧凑和加固设计
- 内置热沉和风扇
- 安全联锁装置
- 全风冷工作

应用

- 激光打标
- 激光切割
- 激光钻孔
- 激光焊接
- 激光划片
- 激光烧蚀
- 激光软钎焊
- 激光调阻
- 激光雕刻

型号说明: **STxx-yy-A-zzz-BBB**

ST – 公司代号

xx – 输出激光功率 (W)

yy – CW (连续) 或 PL (脉冲) 光纤激光器

A - P (偏振光) or R (任意偏振、非偏振)

zzz – OEM (模块化) 或 TKS (turn key system 整机型)

BBB – OTS (optical tweezing system) 或 LP (长脉宽)

	激光功率 W	运行模式	激光波长 nm	光束偏振	光束质量 M ²	光斑直径 mm	外形
ST5-CW-P-OEM	5	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	OEM
ST5-CW-P-TKS	5	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST5-CW-P-TKS-OTS	5	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST5-CW-R-TKS	5	连续, 脉冲调制	1060-1100	随机偏振	1.1	2.2	TKS
ST5-PL-R-OEM	5	脉冲	1064	随机偏振	1.5	0.5	OEM
ST5-PL-R-TKS	5	脉冲或连续	1080	随机偏振	1.5	0.5	TKS
ST10-CW-P-OEM	10	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	OEM
ST10-CW-P-TKS	10	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST10-CW-P-TKS-OTS	10	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST10-CW-R-TKS	10	连续, 脉冲调制	1060-1100	随机偏振	1.1	2.2	TKS
ST10-PL-R-OEM	10	脉冲或连续	1080	随机偏振	1.5	0.5	OEM
ST10-PL-R-TKS	10	脉冲或连续	1080	随机偏振	1.5	0.5	TKS
ST20-CW-P-OEM	20	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	OEM
ST20-CW-P-TKS	20	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST20-CW-P-TKS-OTS	20	连续, 脉冲调制	1060-1100	线性偏振	1.1	2.2	TKS
ST20-CW-R-TKS	20	连续, 脉冲调制	1060-1100	随机偏振	1.1	2.2	TKS
ST20-PL-R-OEM	20	脉冲或连续	1080	随机偏振	1.5	0.6	OEM
ST20-PL-R-OEM-LP	20	脉冲或连续	1080	随机偏振	1.5	0.6	OEM
ST20-PL-R-TKS	20	脉冲或连续	1080	随机偏振	1.5	0.6	TKS
ST50-CW-R-OEM	50	连续, 脉冲调制	1070-1100	随机偏振	1.1	2.2	OEM
ST50-CW-R-TKS	50	连续, 脉冲调制	1070-1100	随机偏振	1.1	2.2	TKS
ST100-CW-R-OEM	100	连续, 脉冲调制	1070-1100	随机偏振	1.1	5.5	OEM

说明:

- OEM: 外形尺寸小, 需要直流电源和外控信号。
- TKY: 整机结构, 19 寸机箱, 输入电压是 85-264VAC。
- OTS: 该激光器的激光谱带宽很窄, 特别适合于 optical tweezing applications.

与目前市面上的光纤激光器比较, 我们的优势:

- 更短脉宽
- 更高脉冲功率
- 更好的功率稳定性
- 更窄的激光谱带宽
- 我们的激光器可以脉冲运行, 也可以连续运行
- 方便的可换泵浦源, 用户可以自己更换泵浦源
- 优质服务

脉冲光纤激光器

OEM型脉冲光纤激光器是一系列专为OEM客户设计的紧凑型脉冲输出掺镱光纤激光器，平均输出功率高达20W，具有接近衍射极限的高光束质量 $M^2 < 1.5$ ，在脉冲宽度小于30ns的情况下，输出高达20kW的峰值功率。同时，该系列激光器的另一个关键特征是在脉冲模式或连续模式下均可工作。激光脉冲的重复频率与输出功率可通过8位TTL信号、RS232或者模拟信号进行控制。高光束质量与功率稳定性使得我们的光纤激光器能够满足很多应用领域的要求。我们的专利技术“Injection Technology注入技术”使得我们的产品能够采用高可靠性的大面积激光二极管泵浦源，从而实现了产品的高性价比与免维护操作。所有脉冲光纤激光器都有整机型。

全光纤结构设计保证了激光器的高可靠性，而无需任何光学元件进行准直调整。系统的集成化设计让客户使用更加方便，为各种工业应用提供了理想的解决方案。



特点

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- 可选的连续工作模式
- 光功率反馈监测
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- 高可靠性的激光二极管泵浦源
- 高光束质量 $M^2 < 1.5$
- 免维护操作
- 紧凑和加固设计
- 内置热沉和风扇
- 安全联锁装置
- 全风冷工作

应用

- 激光打标
- 激光切割
- 激光钻孔
- 激光焊接
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- 激光调阻
- 激光雕刻

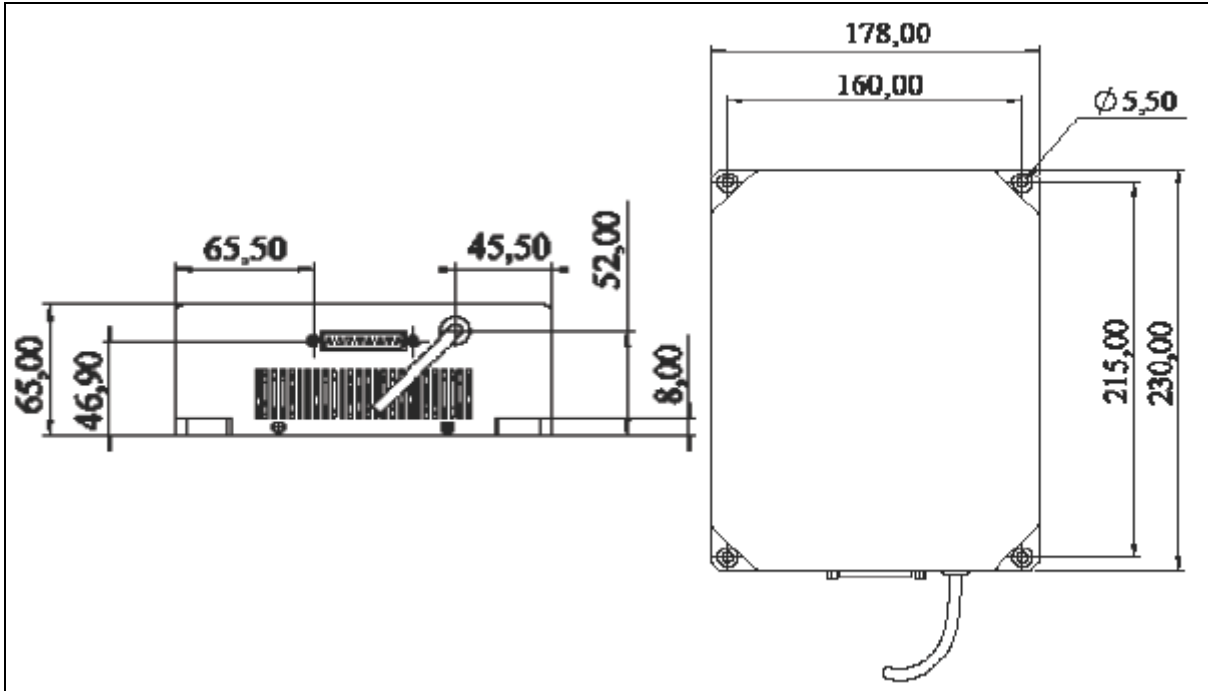
	ST5-PL-R	ST10-PL-R	ST20-PL-R
运行模式	脉冲	脉冲或连续	脉冲或连续
输出激光功率, W	5	10	20
20kHz时单脉冲输出能量, mJ	0.25	0.5	1.0
脉宽, ns	<30	<30	<30
20kHz时脉冲峰值功率, kW	>5	>10	>20
脉冲重复率, kHz	20至100	20至100	20至100
输出功率调整范围, %	10 - 100	10 - 100	10 - 100
输出功率稳定度, %	<+/- 2	<+/- 2	<+/- 2
外控TTL调制频率, kHz	最高5	最高5	最高5
激光波长, nm	1064	1080	1080
激光谱带宽 (FWHM), nm	< 3	< 3	< 3
光束偏振性	随机	随机	随机
输出光纤长度, m	3	3	3
光束直径, mm	0.5	0.5	0.6
光束质量 M ²	1.5	1.5	
外形尺寸 (含热沉), mm	178x230x65	285x215x120	285x215x120
重量 (含热沉), kg	< 11	< 11	< 11
储存温度, °C	- 20 to + 60	- 20 to + 60	- 20 to + 60
运行环境温度, °C	+ 15 to + 40	+ 15 to + 40	+ 15 to + 40
控制接口	RS232	RS232和8位TTL或模拟信号	RS232和8位TTL或模拟信号
输入直流电源电压, V	12	12	12
激光器功耗, W	50	180	240

备注：上面脉冲光纤激光器都有 OEM 和整机型两种结构。

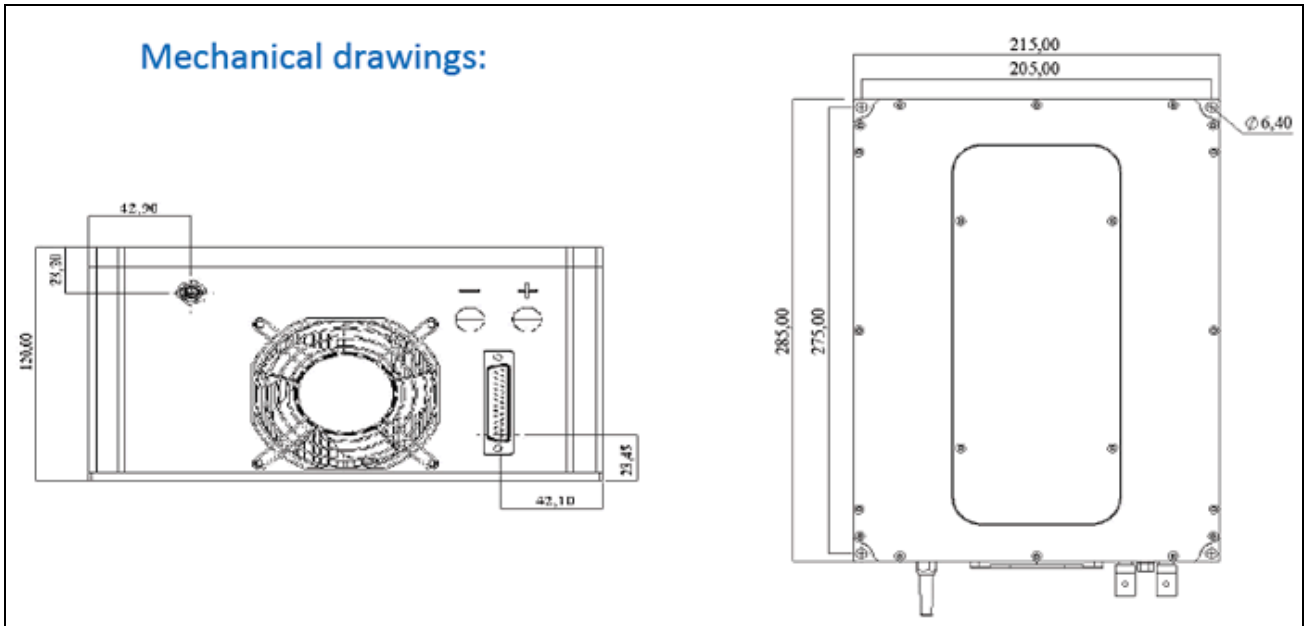
可选项

- 扩束镜
- 各种光纤长度
- 红光指引
- 各种形式输出端子
- 波长范围1060-1090nm
- 远程控制原件
- 延长保修期
- 12V供电电源
- 19"机架版本
- 自动功率控制APC：输出功率稳定性优于1%

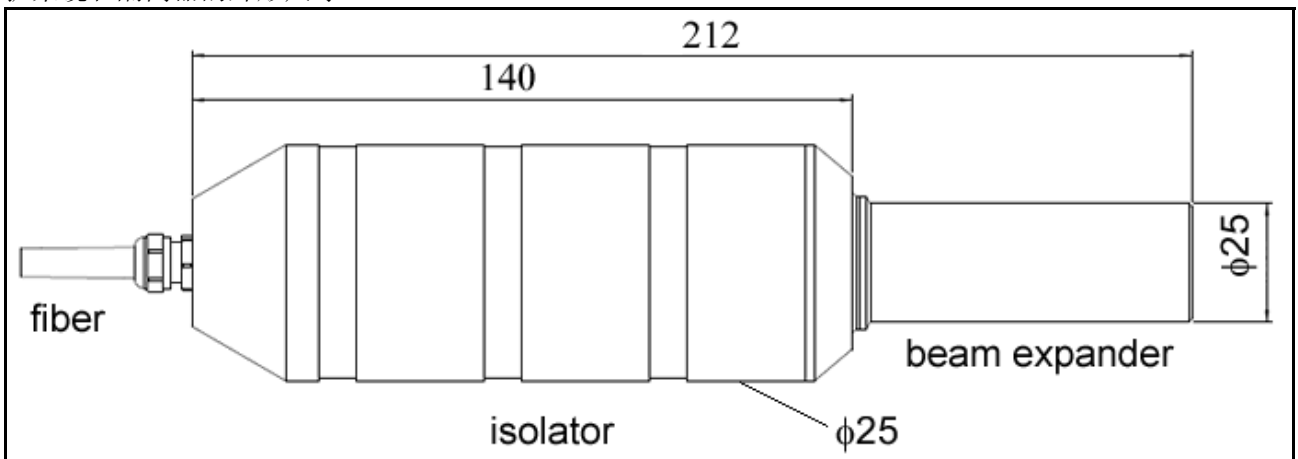
ST5-PL-R-OEM 的外形尺寸



ST10-PL-R-OEM 和 ST20-PL-R-OEM 的外形尺寸



扩束镜和隔离器的外形尺寸



连续光纤激光器

OEM型连续光纤激光器是一系列专为OEM客户设计的紧凑型连续输出掺镱光纤激光器，输出功率高达100W，具有接近衍射极限的高光束质量 $M^2 < 1.1$ ，分为偏振激光束和非偏振激光束激光器，我们的专利技术“Injection Technology注入技术”使得我们的产品能够采用高可靠性的大面积激光二极管泵浦源，从而实现了产品的高性价比与免维护操作。全光纤结构设计保证了激光器的高可靠性，而无需任何光学元件进行准直调整。系统的集成化设计让客户使用更加方便，为各种工业应用提供了理想的解决方案。所有连续光纤激光器都有整机型。

主要特性：

- 线性偏振光束或非偏振光束
- 输出高达100W
- 高光束质量($M^2 < 1.1$)
- 高可靠的泵浦源
- 免维护操作
- 紧凑、风冷



主要应用领域：

- 研究
- 测量
- 医疗

产品型号	ST5-CW-P	ST10-CW-P	ST20-CW-P	ST50-CW-R	ST100-CW-R	单位
运行模式	连续，可调制	连续，可调制	连续，可调制	连续，可调制	连续，可调制	-
输出激光功率	5	10	20	20	100	W
输出功率调整范围	10-100	10-100	10-100	10-100	10-100	%
功率稳定性	< +/-2	< +/-2	< +/-2	< +/-2	< +/-2	%
激光波长	1060-1100	1060-1100	1060-1100	1070-1100	1070-1100	nm
激光线宽 (FWHM)	< 1	< 1	< 1	< 1	< 1	nm
偏振性	线性	线性	线性	任意	任意	-
PER (偏振消光比)	> 18	> 17	> 15			dB
激光束模式	高斯分布	高斯分布	高斯分布	高斯分布	高斯分布	-
输出光纤长度	3	3	3	3	3	m
光斑直径 @1/e ²	2.2	2.2	2.2	2.2	5.5	mm
光束质量 M ²	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	-
外形尺寸	230x178x65	230x178x65	285x215x120	285x285x120	285x285x150	mm ³
重量	< 3	< 10	< 10	< 18	< 20	kg
储存温度	-20 至+60	-20 至+60	-20 至+60	-20 至+60	-20 至+60	°C
工作温度	+10至+40	+10至+40	+10至+40	+15至+40	+15至+40	
控制接口	RS232	RS232	RS232	RS232	RS232/模拟	-
需输入直流电压	12	12	12	12	12	V
典型功耗	<30	<150	<320	<1000	<1500	W

备注：所有上面的激光器都有OEM型和整机型两种结构。

其它可选项：

- 各种不同长度的输出光纤
- 各种准直光学
- 隔离器
- 各种输出接口
- “REMO“ 远程控制器
- RS232 控制

ST5-CW-P-OEM CW Polarized 5W Fiber Laser

The ST5-CW-P-OEM Module is a compact CW Fibre Laser delivering up to 5W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. With either a connectorised FC/APC or a collimated output termination the ST5-CW-P-OEM is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Up to 5W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included

Applications:

- Research
- Measurement
- Medical



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	Up to 5	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	<+/-2	%
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 18	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions (without heatsink)	230 x 178 x 65	mm ³
Weight	< 3	kg
Storage / Operation Temperature	- 20 to + 60 / + 10 to + 40	°C
Control Interface	RS232	-
Operating voltage DC	12	V
Typical power consumption (5W @ 25°C)	<30	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- “REMO“ Remote control unit
- Extended warranty
- 12 V power supply
- RS232 control

ST5-CW-P-TKS CW Polarized 5W Fiber Laser

The ST5-CW-P-TKS “TurnKey system” is a compact CW Fibre Laser delivering up to 5W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. With either a connectorised FC/APC or a collimated output termination the ST5-CW-P-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Up to 5W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Medical



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	Up to 5	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/-2	%
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 18	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / +15 to +35	°C
Control Interface	Front panel or USB	-
Operating voltage VAC	85-264	V
Typical power consumption (5W @ 25°C)	<50	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST5-CW-P-TKS-OTS

CW Polarized 5W Fiber Laser for Optical Tweezing

The ST5-CW-P-TKS-OTS “TurnKey system“ is a compact CW Fibre Laser delivering up to 5W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The narrow linewidth of the ST5-CW-P-TKS-OTS makes this laser unique and optimized light source for all optical tweezing applications. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. With either a connectorised FC/APC or a collimated output termination the ST5-CW-P-TKS-OTS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Narrow linewidth (<0.25nm)
- Up to 5W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

**Applications:**

- Research
- Measurement
- Optical Tweezing

Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	Up to 5	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	<+/-2	%
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 0.25	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 18	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / +15 to +35	°C
Control Interface	Front panel or USB	-
Operating voltage VAC	85-264	V
Typical power consumption (5W @ 25°C)	<50	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST5-CW-R-TKS CW 5W Fiber Laser

The ST5-CW-R-TKS “Turn Key System“ is a compact CW Fibre Laser delivering up to 5W of output power, through a near diffraction limited beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the Bench Top system requires no after-installation service. The ST5-CW-R-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Up to 5W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Micromachining



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	5	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (5W @ 25°C)	< 180	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST5-PL-R-OEM
5W Pulsed Fiber Laser

The ST5-PL-R-OEM Module is a compact Pulsed Ytterbium Fibre Laser delivering up to 5W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 5 kW of peak power due to a pulse duration lower than 50 ns. Pulse repetition rate or output power can be controlled by RS232. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST5-PL-R-OEM is the ideal solution for a broad range of industrial applications.

Features:

- Up to 0.25 mJ
- Below 50 ns pulse width
- Optical power feedback detection
- Including back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- RS 232
- Compact & rugged design
- Safety Interlock

Applications:

- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving



Parameter	Value	Unit
Operation mode	Pulsed	-
Nominal average output power	5	W
Energy per pulse (at 20 kHz)	0.25	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>5	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1064	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	<1.5	-
Dimensions	178 x 230 x 65	mm ³
Weight	< 3	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 45	°C
Control interface includes RS232	RS 232	-
Operating voltage DC	12	V
Typical power consumption (5W @ 25°C)	< 50	W

Options:

- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Customised specs on request
- Extended warranty
- 12 V power supply
- Rack 19" version

ST5-PL-R-TKS 5W Pulsed Fiber Laser

The ST5-PL-R-TKS “TurnKey system” is a Pulsed Ytterbium Fibre Laser delivering up to 5W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 5kW of peak power due to a pulse duration lower than 50ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate or output power can be controlled through an user friendly interface. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST5-PL-R-TKS is the ideal solution for a broad range of industrial applications.

Features:

- Up to 0.25 mJ
- Below 50 ns pulse width
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled
- Cables included
- USB

Applications:

- Research
- Micromachining
- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving



Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	5	W
Energy per pulse (at 20 kHz)	0.25	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>5	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	<1.5	-
Dimensions	448 x 451 x 132	mm ³
Weight	< 13	Kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 40	°C
Control interface	Front panel & USB	-
Operating voltage VAC	88-264	V
Typical power consumption (5W @ 25°C)	< 75	W

Options:

- Beam expander
- Red pilot beam for tracking
- Wavelength range 1060-1090nm
- 8 bits TTL or Analog Interfaces

ST10-CW-P-OEM 10W CW Fiber Laser

The ST10-CW-P-OEM Module is a compact CW Fibre Laser delivering up to 10W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST10-CW-P-OEM is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Up to 10W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included

Applications:

- Research
- Measurement
- Medical
- Micromachining



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	Up to 10	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/-2	%
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 17	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions (without heatsink)	230 x 178 x 65	mm ³
Weight	< 10	kg
Storage / Operation Temperature	- 20 to + 60 / + 10 to + 40	°C
Control Interface	RS232	-
Operating voltage DC	12	V
Typical power consumption (10W @ 25°C)	<150	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- "REMO" Remote control unit
- Extended warranty
- 12 V power supply
- RS232 control

ST10-CW-P-TKS

10W Polarized CW Fiber Laser

The ST10-CW-P-TKS “TurnKey system” is a compact CW Fibre Laser delivering up to 10W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST10-CW-P-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Up to 10W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Safety Interlock
- Forced air cooled
- Cables included
- USB

**Applications:**

- Research
- Measurement
- Medical

Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	10	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 17	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (10W @ 25°C)	< 180	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST10-CW-P-TKS-OTS

10W Polarized CW Fiber Laser for Optical Tweezing

The ST10-CW-P-TKS-OTS “TurnKey system“ is a compact CW Fibre Laser delivering up to 10W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The narrow linewidth of the ST10-CW-P-TKS-OTS makes this laser unique and optimized light source for all optical tweezing applications. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST10-CW-P-TKS-OTS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Narrow linewidth (<0.25nm)
- Up to 10W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

**Applications:**

- Research
- Measurement
- Optical Tweezing

Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	10	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 0.25	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 17	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (10W @ 25°C)	< 180	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST10-CW-R-TKS 10W CW Fiber Laser

The ST10-CW-R-TKS “Turn Key System“ is a compact CW Fibre Laser delivering up to 10W of output power, through a near diffraction limited beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the Bench Top system requires no after-installation service. The ST10-CW-R-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Up to 10W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Micromachining



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	10	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (10W @ 25°C)	< 180	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST10-PL-R-OEM

10W Pulsed Fiber Laser

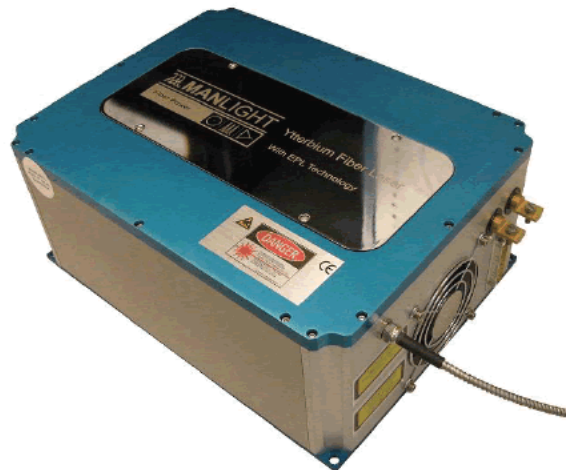
The ST10-PL-R-OEM Module is a compact Pulsed Ytterbium Fibre Laser delivering up to 10W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 10 kW of peak power due to a pulse duration lower than 50 ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate and output power can be controlled either by 8-bits TTL signal or RS232 or Analog. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective, and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. Designed under the proprietary „EPL“ technology (Exchangeable Pump Laser), there is no need to send back the ST10-PL-R-OEM to us for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The simple integration of the system requires no after-installation service. The ST10-PL-R-OEM is the ideal solution for a broad range of industrial applications.

Features:

- Up to 0.5 mJ
- Below 50 ns pulse width
- Exchangeable pump laser
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- RS 232 / 8 bits TTL / Analog
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled

Applications:

- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving



Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	10	W
Energy per pulse (at 20 kHz)	0.5	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>10	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	< 1.5	-
Dimensions	285 x 215 x 120	mm ³
Weight	< 11	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 45	°C
Control interface includes	RS232 & add. 8 bits TTL or Analog	-
Operating voltage DC	12	V
Typical power consumption (5W @ 25°C)	< 180	W

ST10-PL-R-TKS

10W Pulsed Fiber Laser

The ST10-PL-R-TKS “TurnKey system“ is a Pulsed Ytterbium Fibre Laser delivering up to 10W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 10kW of peak power due to a pulse duration lower than 50ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate or output power can be controlled through an user friendly interface. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST10-PL-R-TKS is the ideal solution for a broad range of industrial applications.

Features:

- Up to 0.5 mJ
- Below 50 ns pulse width
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled
- Cables included
- USB

**Applications:**

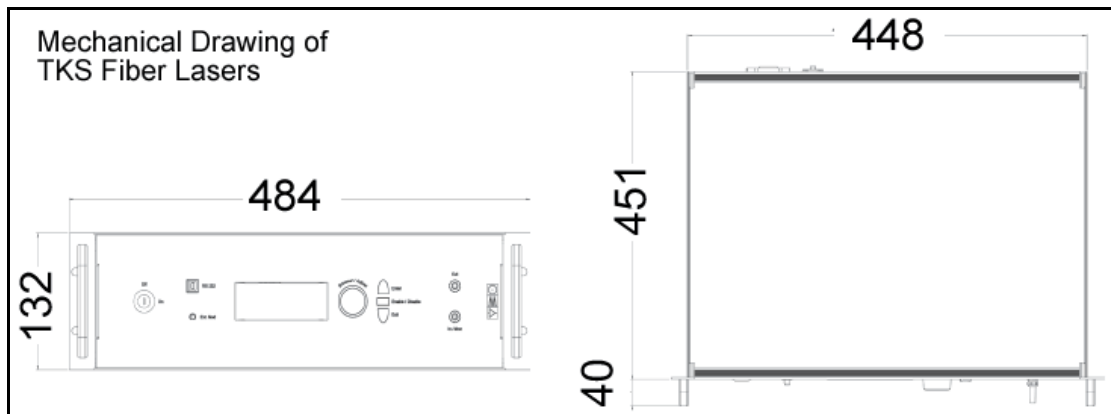
- Research
- Micromachining
- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving

Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	10	W
Energy per pulse (at 20 kHz)	0.5	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>10	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	<1.5	-
Dimensions	448 x 451 x 132	mm ³

Weight	< 13	Kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 40	°C
Control interface	Front panel & USB	-
Operating voltage VAC	88-264	V
Typical power consumption (10W @ 25°C)	< 180	W

Options:

- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- 8 bits TTL or Analog Interfaces
- Extended warranty



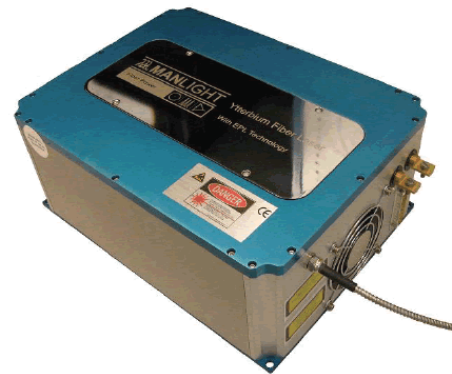
ST20-CW-P-OEM

20W Polarized CW Fiber Laser

The ST20-CW-P-OEM Module is a compact CW Fibre Laser delivering up to 20W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. Designed under the proprietary „EPL“ technology (Exchangeable Pump Laser), there is no need to send back the ST20-CW-P-OEM to Us for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The simple integration of the system requires no after-installation service. The ST20-CW-P-OEM is the ideal solution for a broad range of industrial applications.

Features:

- Linear polarization
- Up to 20W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- Exchangeable Pump technology
- Safety Interlock
- RS232

**Applications:**

- Research
- Measurement
- Micromachining

Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	20	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 15	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions (heatsink included)	285 x 215 x 120	mm ³
Weight (heatsink included)	< 10	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40	°C
Control interface	RS-232	-
Operating voltage DC	12	V
Typ. power consumption (20W @ 25°C)	< 320	W

Options:

- Variety of fibre lengths
- Different collimating optics
- Back reflection output isolator
- Variety of output terminations
- "REMO" Remote control unit
- Extended warranty
- Rack 19" version

ST20-CW-P-TKS 20W CW Fiber Laser

The ST20-CW-P-TKS “TurnKey system” is a compact CW Fibre Laser delivering up to 20W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST20-CW-P-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Up to 20W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Safety Interlock
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Medical



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	20	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 15	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (20W @ 25°C)	< 320	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST20-CW-P-TKS-OTS

20W Polarized CW Fiber Laser for Optical Tweezing

The ST20-CW-P-TKS-OTS “TurnKey system“ is a compact CW Fibre Laser delivering up to 20W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The narrow linewidth of the ST20-CW-P-TKS-OTS makes this laser unique and optimized light source for all optical tweezing applications. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST20-CW-P-TKS-OTS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Linear polarization
- Narrow linewidth (<0.25nm)
- Up to 20W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Optical Tweezing



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	20	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 0.25	nm
Polarization	Linear	-
PER (Polarization Extinction Ratio)	> 15	dB
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to +55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (20W @ 25°C)	< 320	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST20-CW-R-TKS 20W CW Fiber Laser

The ST20-CW-R-TKS “Turn Key System“ is a compact CW Fibre Laser delivering up to 20W of output power, through a near diffraction limited beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the Bench Top system requires no after-installation service. The ST20-CW-R-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Up to 20W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Research
- Measurement
- Micromachining



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	20	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1060 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 13	kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (20W @ 25°C)	< 320	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST20-PL-R-OEM 20W Pulsed Fiber Laser

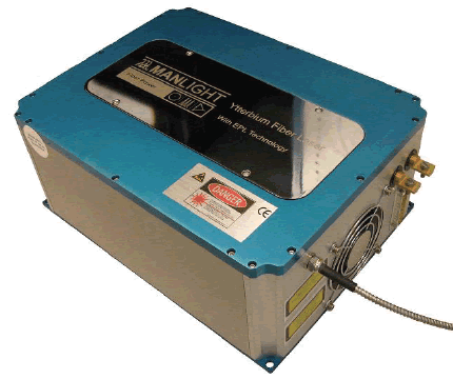
The ST20-PL-R-OEM Module is a compact Pulsed Ytterbium Fibre Laser delivering up to 20W of average output power, through a near diffraction limited beam. It allows to obtain more than 20 kW of peak power due to a pulse duration lower than 50 ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate and output power can be controlled either by 8-bits TTL signal , Analog or RS232 + TTL. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. Designed under the proprietary „EPL“ technology (Exchangeable Pump Laser), there is no need to send back the ST20-PL-R-OEM to Us for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The simple integration of the system requires no after-installation service. The ST20-PL-R-OEM is the ideal solution for a broad range of industrial applications.

Features:

- Up to 1 mJ
- Below 50 ns pulse width
- Exchangeable pump laser
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Maintenance free operation
- RS 232 / 8 bits TTL / Analog
- Compact & rugged design
- Including heat sink & fan
- Excellent beam quality
- Safety Interlock
- Air cooled

Applications:

- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving



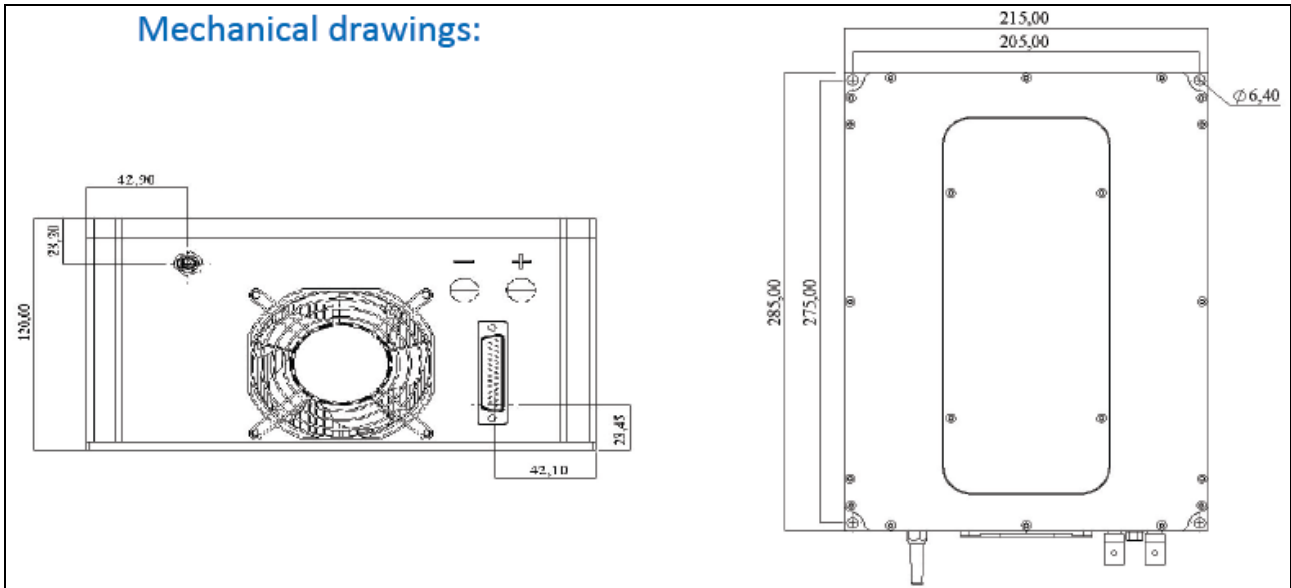
Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	20	W
Energy per pulse (at 20 kHz)	1.0	mJ
Pulse duration	<50	ns
Pulse peak power (at 20 kHz)	>20	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (over 1 hour)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.6	mm
Beam quality M ²	Gaussian profile	-
Dimensions (heatsink included)	285 x 215 x 120	mm ³
Weight (heatsink included)	< 11	kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40	°C
Control interface includes	RS232 & add. 8 bits TTL or Analog	-
Operating voltage DC	12	V
Typical power consumption (20W @ 25°C)	< 350	W

Options:

- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking

- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- "REMO" Remote control unit
- Extended warranty
- 12 V power supply
- Rack 19" version

Mechanical drawings:

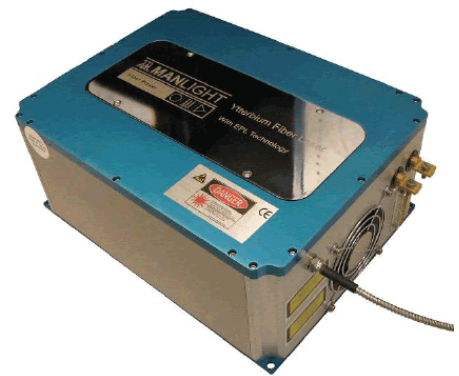


ST20-PL-R-OEM-PL
20W Pulsed Fiber Laser

The ST20-PL-R-OEM-LP Module is a compact Pulsed Ytterbium Fibre Laser delivering up to 20W of average output power, through a near diffraction limited beam. It allows to obtain 7 kW of peak power due to a pulse duration of 100 ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate and output power can be controlled either by 8-bits TTL signal, Analog or RS232 + TTL. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. Designed under the proprietary "EPL" technology (Exchangeable Pump Laser), there is no need to send back the ST20-PL-R-OEM-LP to Us for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The simple integration of the system requires no after-installation service. The ST20-PL-R-OEM-LP is the ideal solution for a broad range of industrial applications.

Features:

- Up to 1 mJ
- 100 ns pulse width
- Exchangeable pump laser
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Maintenance free operation
- RS 232 / 8 bits TTL / Analog
- Compact & rugged design
- Including heat sink & fan
- Excellent beam quality
- Safety Interlock
- Air cooled



Applications:

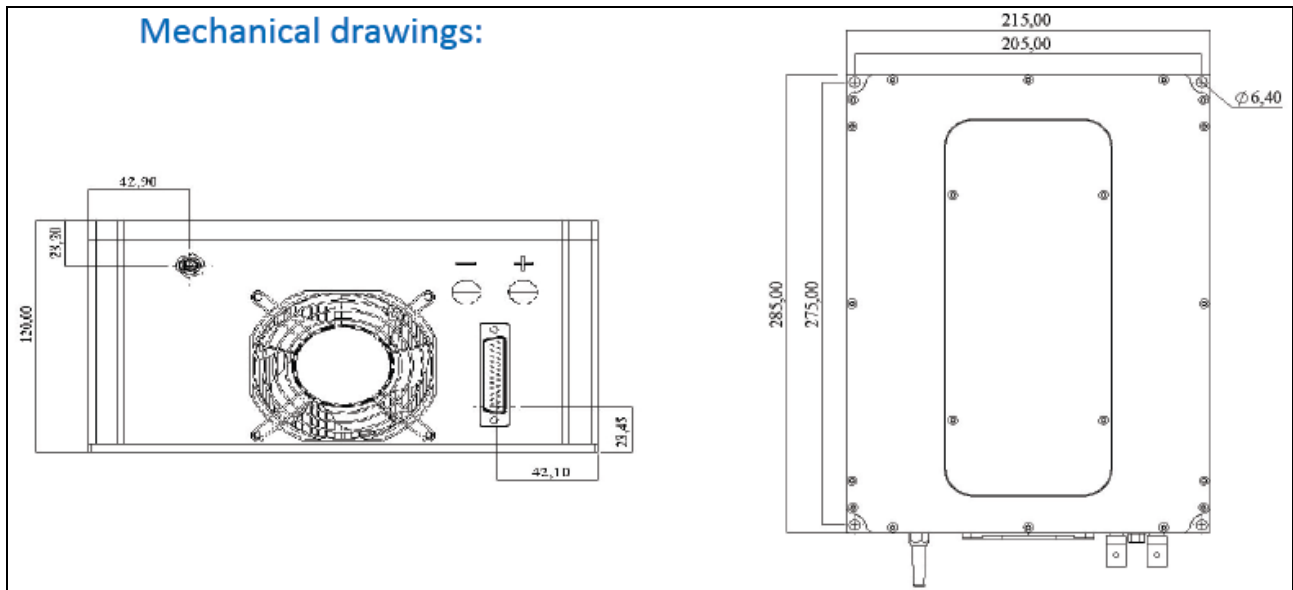
- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving

Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	20	W
Energy per pulse (at 20 kHz)	1.0	mJ
Pulse duration	80 to 150	ns
Pulse peak power (at 20 kHz)	7	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (over 1 hour)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.6	mm
Beam quality M ²	Gaussian profile	-
Dimensions (heatsink included)	285 x 215 x 120	mm ³

Weight (heatsink included)	< 11	kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40	°C
Control interface includes	RS232 & add. 8 bits TTL or Analog	-
Operating voltage DC	12	V
Typical power consumption (20W @ 25°C)	< 350	W

Options:

- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- "REMO" Remote control unit
- Extended warranty
- 12 V power supply
- Rack 19" version

Mechanical drawings:

ST20-PL-R-TKS

20W Pulsed Fiber Laser

The ST20-PL-R-TKS “TurnKey system“ is a Pulsed Ytterbium Fibre Laser delivering up to 20W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 20kW of peak power due to a pulse duration lower than 50ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate or output power can be controlled through an user friendly interface. The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the system requires no after-installation service. The ST20-PL-R-TKS is the ideal solution for a broad range of industrial applications.

Features:

- Up to 1 mJ
- Below 50 ns pulse width
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled
- Cables included
- USB

**Applications:**

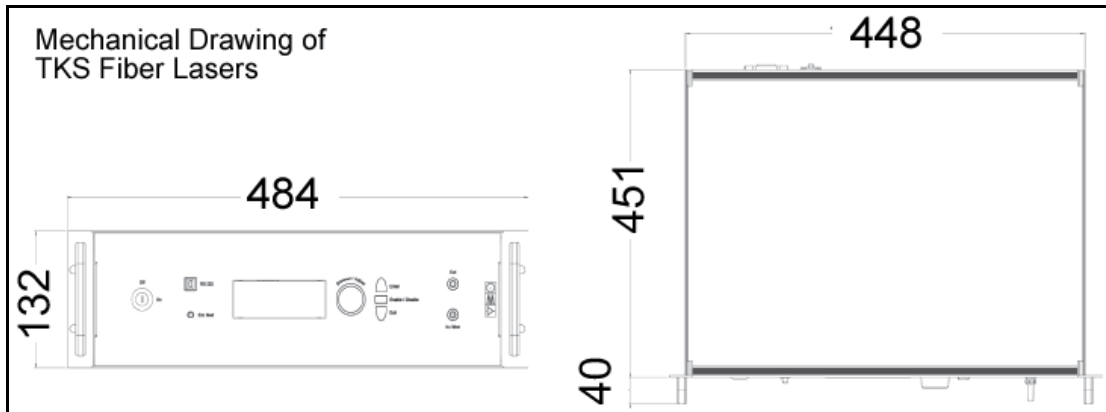
- Research
- Micromachining
- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving

Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	20	W
Energy per pulse (at 20 kHz)	1	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>20	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	<1.5	-
Dimensions	448 x 451 x 132	mm ³
Weight	< 13	Kg

Storage / Operation Temperature	0 to + 55 / + 15 to + 40	°C
Control interface	Front panel & USB	-
Operating voltage VAC	88-264	V
Typical power consumption (20W @ 25°C)	< 350	W

Options:

- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- 8 bits TTL or Analog Interfaces
- Extended warranty



ST50-CW-R-TKS 50W CW Fiber Laser

The ST50-CW-R-TKS “Turn Key System“ is a compact CW Fibre Laser delivering up to 50W of output power, through a near diffraction limited beam ($M^2 < 1.1$). The excellent beam quality and power stability make our fiber laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. The simple integration of the Bench Top system requires no after-installation service. The ST50-CW-R-TKS is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Up to 50W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB

Applications:

- Marking
- Engraving
- Printing
- Sintering
- Welding
- Soldering
- Research
- Measurement
- Micromachining



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	50	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1070 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	2.2	mm
Beam quality M ²	< 1.1	-
Dimensions	3U 19" (448 x 451 x 132)	mm ³
Weight	< 18	kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 35	°C
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (50W @ 25°C)	< 1000	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

ST100-CW-R-OEM
100W CW Fiber Laser

The ST100-CW-R-OEM is a compact CW Fibre Laser delivering up to 100W of output power, through a near diffraction limited beam ($M^2 < 1.1$). Designed under the proprietary “EPL” technology (Exchangeable Pump Laser), there is no need to send back the ST100-CW-ROEM to us for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is nomore an issue. The excellent beam quality and power stability make our fiber laser multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilize. The simple integration of the system requires no after-installation service. The ST100-CW-R-OEM is the ideal solution for a broad range of industrial and scientific applications.

Features:

- Up to 100W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- Exchangeable Pump technology
- Safety Interlock
- RS232

Applications:

- Marking
- Welding
- Printing
- Sintering
- Soldering
- Engraving
- Measurement
- Graphic Imaging



Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	100	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 10.0	kHz
Laser wavelength	1070 – 1100	nm
Emission bandwidth (FWHM)	< 1	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fiber length	3	m
Typical beam diameter @1/e ²	<5.5	mm
Beam quality M ²	<1.1	-
Dimensions (heatsink included)	285 x 285 x 150	mm ³
Weight (heatsink included)	< 20	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40	°C
Control interface	Analog / RS-232	-
Operating voltage VDC	12	V
Typ. power consumption (50W @ 25°C)	< 1500	W

Options:

- Variety of fibre lengths
- Different collimating optics
- Back reflection output isolator
- Control interface options
- Customised specs on request
- Red pilot option
- Extended warranty
- 12 V power supply
- Rack 19" version