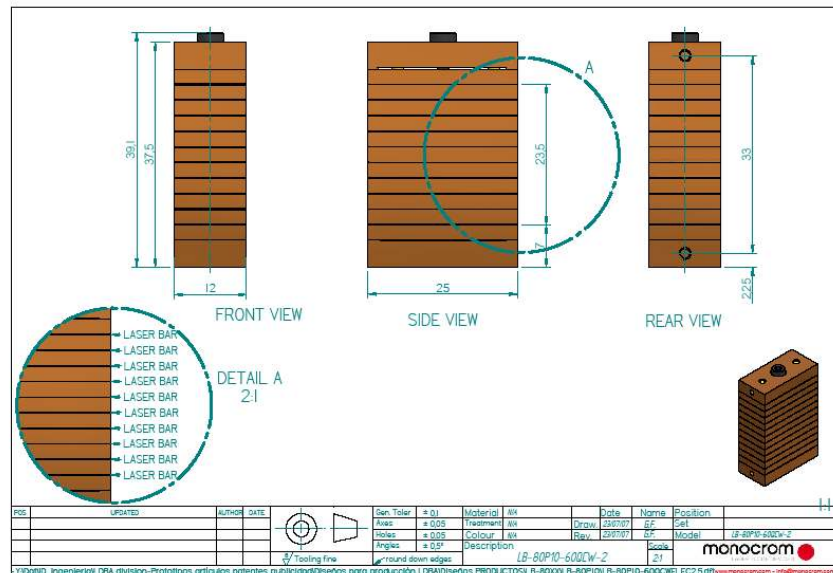
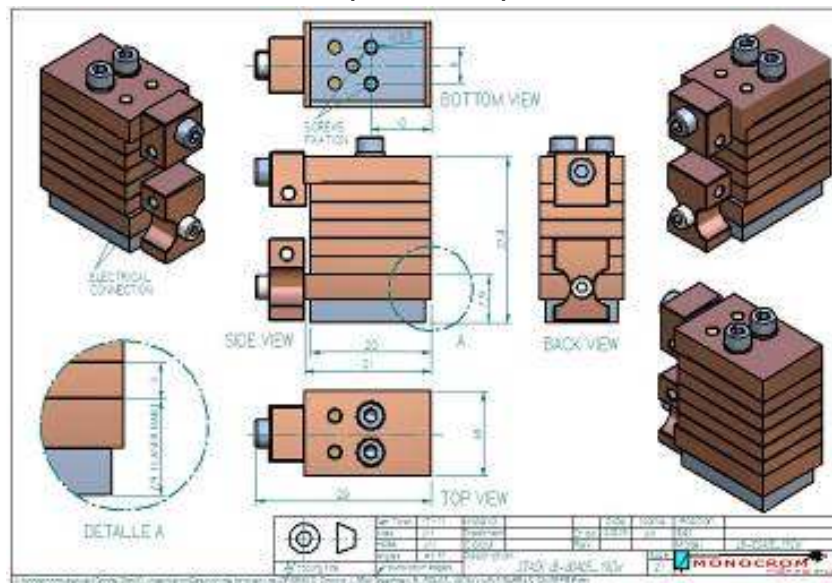


Business Division	 <b>LDBA</b>	<b>Laser Diode Bar Assemblies</b>
Product	<b>LB-85P10-17PULS-3000</b>	
Description	<b>LBS 17em., 10 bars, 850 +/- 3 nm @ 300W/bar up to 300 W-PULSED, conductive-cooling</b>	
Main Features	<p><b>Solder-free diode bar mounting technology, exclusive from MONOCROM S.L. No "Smile" effect</b></p> <p><b>Main features of the free-solder concept of the clamp-mounting technology :</b></p> <ul style="list-style-type: none"><li>● <b>Long lifetime</b>, due to the absence of the mechanical stress caused by the soldering process at high temperature</li><li>● <b>Minimum "smile"</b>, less than 0.5 mm</li><li>● <b>High reliability in pulsed conditions</b>, since the clamped bars do not suffer the same fatigue effect than the soldered ones due to the thermal cycle</li><li>● <b>Small thermal resistances</b>, owing to the reduction of the contact resistance between electrodes and laser bar. No micro channels are needed to reach low thermal resistances</li><li>● <b>Large storage temperature interval</b>, tested from -60°C to + 85°C.</li></ul>	
Picture(s)		



## Outline (examples)

**(10-bars stack)**



**(5-bars stack)**

Ordering Information:



800 Village Walk #316  
Guilford, CT 06437  
Ph: 203-401-8093

Email orders to: [sales@xsoptix.com](mailto:sales@xsoptix.com)  
Fax orders to: 800-878-7282



## LB-10P10-60QCW | GENERAL TECH SPECIFICATIONS

Product number	LB-85P10-17PULS-3000
Number of laser bars	10
Number of emitters in each laser bar <sup>1</sup>	17
Laser bar geometry <sup>1</sup>	1 cm wide; 30% fill factor; emitter size: 200 µm; emitter spacing: 600 µm
Centre wavelength <sup>2</sup>	850±8nm
Threshold current <sup>1</sup>	15 A
Peak power, P <sub>peak</sub> , max	3000W
Current (A), typ.	290
Operation voltage (V), typ.	>20 V
Pulse length (ms), Max	> 10ns
Duty cycle, Max <sup>3</sup>	1%
Wavelength FWHM <sup>4</sup>	2,5 nm
Polarization <sup>5</sup>	TE
Wavelength Temp. Coefficient	0,3 nm/°C
Thermal resistance <sup>6</sup>	0,5 °C/W
Beam divergence Reg.	Fast axis ≈ 35°, slow axis ≈ 12°
Collimation FAC	Cylindrical lenses on each diode bar, glued at the laser stack 5% power losses expected from lenses
Beam divergence FAC.	Fast axis ≈ 3-5 mrad, slow axis ≈ 3-6°
Laser spot size after optics (Height x width)	23 x 11 mm
Cooling	Conductive
Diode operation temperature <sup>7</sup>	15-45°C
Electrical connections	Fast connectors (Pin Ø2x10mm), or threads M2mm
Laser class product (EN-60825)	4
Expected lifetime < 1ms	10 <sup>9</sup> pulses

(1) These values could change depending on the type of laser bars chosen by customer.

(2) Other wavelengths are available on request.

(3) Higher duty cycle is available on request.

(4) Spectral Width per bar. The total spectral width of the stack will depend on the centre wavelength tolerance of the bars forming the stack, on duty cycle and pulse width

(5) TE polarization is also available on request.

(6) The stack must be conveniently cooled to achieve such thermal resistance.

(7) Operation temperature could be increased for lower DC.

**Parametrical and dimensional specifications can be modified upon request.**

**Device sensitive to ESD & dust contamination → to handle under clean area conditions advice.**