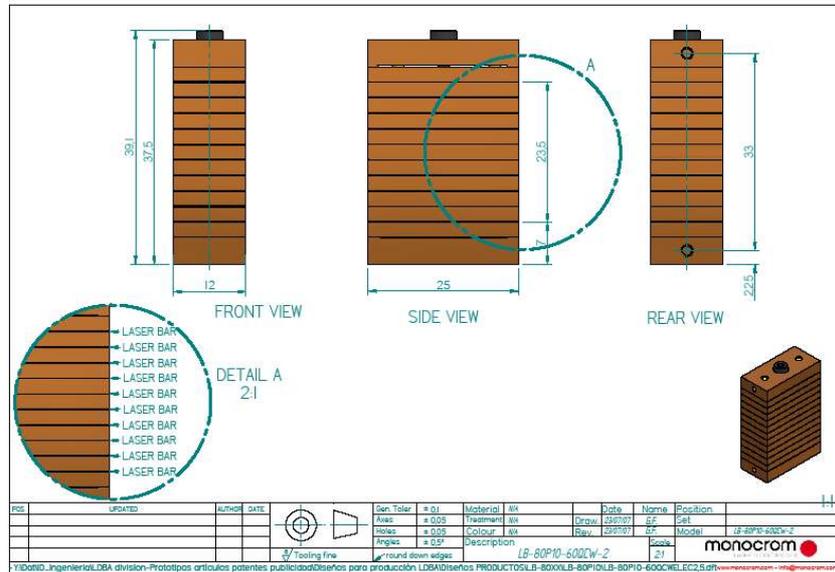
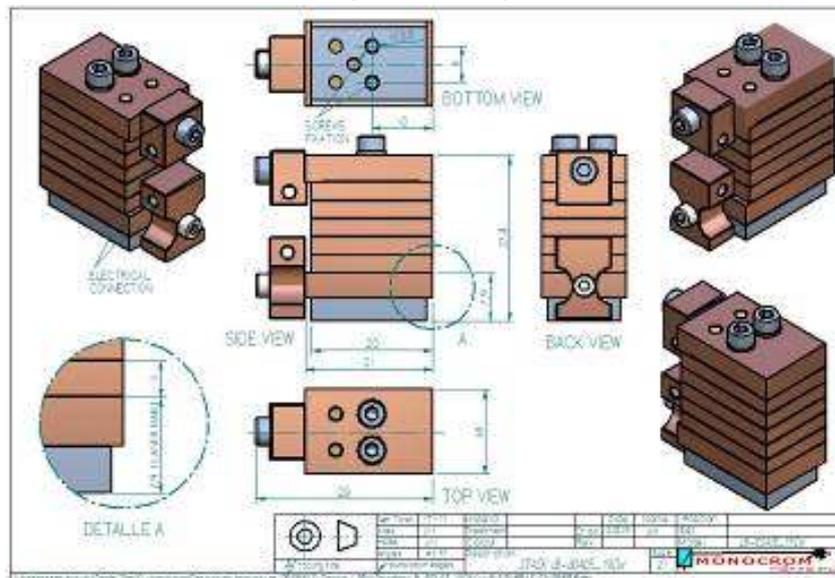


Business Division	 LDBA	Laser Diode Bar Assemblies
Product	LB-80P10-60QCW-2	
Description	LBS 60em., 10 bars, 808 +/- 3 nm @ 270W/bar up to 2700 W QCW, conductive-cooling (FAC optional)	
Main Features	<p>Solder-free diode bar mounting technology, exclusive from MONOCROM S.L. No "Smile" effect Main features of the free-solder concept of the clamp-mounting technology :</p> <ul style="list-style-type: none">● Long lifetime, due to the absence of the mechanical stress caused by the soldering process at high temperature● Minimum "smile", less than 0.5 mm● High reliability in pulsed conditions, since the clamped bars do not suffer the same fatigue effect than the soldered ones due to the thermal cycle● Small thermal resistances, owing to the reduction of the contact resistance between electrodes and laser bar. No micro channels are needed to reach low thermal resistances● Large storage temperature interval, tested from -60°C to + 85°C.	
Picture(s)		



Outline (examples)

(10-bars stack)



(5-bars stack)

LB-80P10-60QCW-2 | GENERAL TECH SPECIFICATIONS

Product number (according to type of diode)	LB-80P10-60QCW-2			
	10 bars 808 nm, conductive cooled, 60em-270W bars, QCW operation			
Number of laser bars	10			
Number of emitters in each laser bar ¹	60-75			
Laser bar geometry ¹	1 cm wide; 80-90% fill factor; emitter size: 110-150 μm; emitter spacing: 130-160 μm			
Centre wavelength ²	808 ± 3nm			
Threshold current ¹	30A			
Peak power, P _{peak} , max	2700	2500	2000	1500
Current (A), typ.	260	250	200	160
Operation voltage (V), typ.	21,5	21	20	19
Pulse length (ms), Max	1	5	10	20
Duty cycle, Max ³	1	1,5	2	3
Wavelength FWHM ⁴	2,5 nm			
Polarization ⁵	TM or TE			
Wavelength Temp. Coefficient	0,3 nm/°C			
Thermal resistance ⁶	0,5 °C/W per bar			
Collimation, optional	Cylindrical or FSAC lenses on each diode bar, glued at the laser stack 5% power losses expected from lenses			
Beam divergence without collimation	Fast axis ≈ 35°, slow axis ≈ 10°			
Beam divergence with collimation	Fast axis ≈ 3-6 mrad, slow axis ≈ 10°			
Laser spot size after optics (Height x width)	23 x 11 mm			
Cooling	Conductive			
Diode operation temperature ⁷	<30°C. If wet atmosphere, T>15°C is recommended			
Electrical connections	Fast connectors (Pin Ø2x10mm), or threads M2mm			
Laser class product (EN-60825)	4			
Expected lifetime < 1ms	10 ⁹ 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.

Ordering Information:



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Fax orders to: 800-878-7282