



CANUNDA-MP

High Energy Laser Beam Shaper and Combiner

Features

- **Free-form** beam shaping
- **CW** and **pulsed** operation
- **High** peak-power handling

Applications

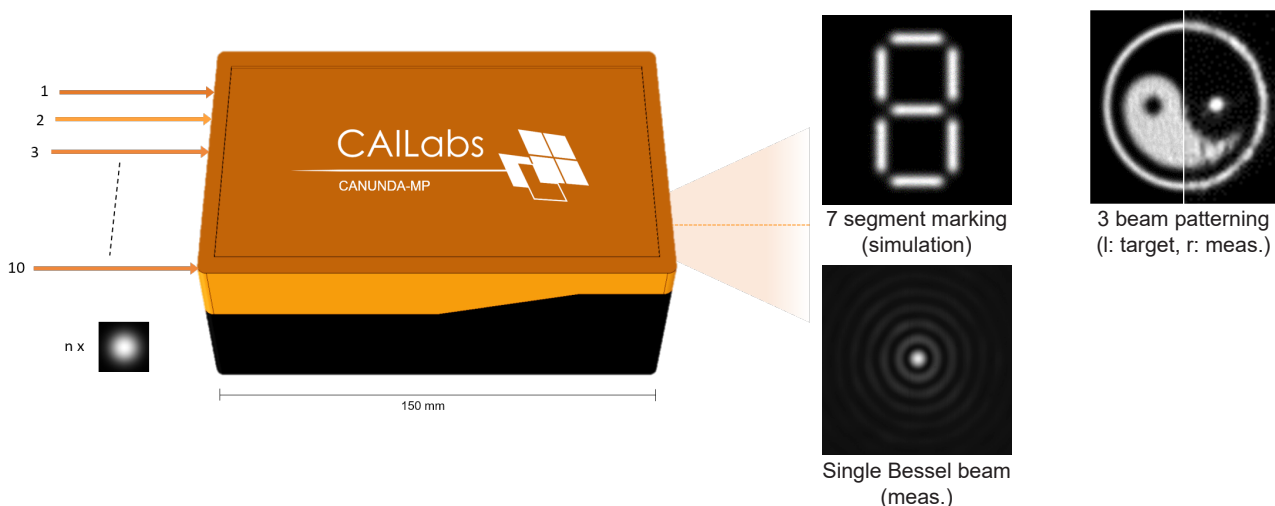
- **Micro-material** processing
- Transparent material **drilling / cutting**
- **Laser combining**

Description

Canunda-MP is a versatile mid-power beam-shaper based on CAILabs flexible beam shaping technology of Multi Plane Light Conversion (MPLC). It can reshape a singlemode laser beam operating either in **ultra-short pulsed** or in **continuous regime** with up to **50 W** of total average power.

Canunda-MP is particularly suited to complex and low losses laser beam reshaping and combining, applied to industrial laser processing quality and throughput improvement.

Use cases



All specifications are correct at the time of production of this specification sheet. Any design or specification can be changed without prior notice.
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General specifications

All parameters given at 25 °C operating temperature and 1030 nm operating wavelength unless otherwise stated.

Parameter	Min.	Typ.	Max.	Observations
Input beam				
Type	Collimated free space input			Optionally fiber pigtailed
Diameter*	0.1 mm		0.5 mm	
Number of beams			10	
Central wavelength	650 nm	1030 nm	4 μm	Other VIS and NIR ranges available
Optical bandwidth			10 % λ	
Operating regime		Pulsed, CW		CW alignment guide
Total average power*			50 W	
Total pulse energy			100 μJ	
Pulse duration	300 fs		CW	
Spatial mode		TEM ₀₀		
Beam quality (M ²)			1.1	Stable input transverse beam profile
Output beam				
Type	Collimated free space output			
Diameter	1 mm			
Total losses*		5 %	10 %	Ratio between total input and output power
Conversion efficiency	95 %	98 %		Output energy within the targeted shape
Alignment guide (optional)				
Input*	FC-APC pigtail on HI1060 fiber			Counter-propagative alignment guide beam
Wavelength	1040 nm		1080 nm	Other ranges available
Mechanical and environment				
Package dimensions	150 x 100 x 52 mm ³			
Operating temperature*	+0 °C	+25 °C	+50 °C	
Relative humidity	5 %		65 %	Non condensing

* preliminary

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