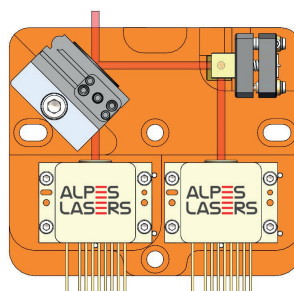
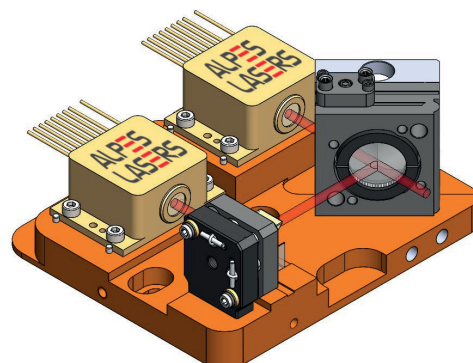


## Beam Combiner

The Alpes Lasers Beam Combiner is a platform that allows the output beam of two different quantum cascade lasers in standard HHL housing to be combined into a single beam. The system uses fixed optics to rotate the polarization of one of the beam and combines them using a polarizing plate, resulting in a combined beam with the combined power of both original beams. The platform is supplied with both laser housing installed and aligned. The lasers use separate drivers (drivers and temperature controllers sold separately) and can be driven independently or concurrently.



The beam combiner is supplied with a heatsinking plate that contains two water flow connectors (replaceable with 4.2 mm M5 thread connectors) that are compatible with 6 mm diameter plastic tubing. The tubing and water chiller are not provided. A water flow of 0.3 l/min of water kept at a temperature in the 15°C-20°C range is recommended.

### Key Features

- Can combine two beams at different wavelengths
- Can combine two identical beams for improved power
- Circular output beam

### Key Applications

- Spectroscopy in widely separated wavelengths
- Dual Comb Spectroscopy
- DIRCM



## Specifications

PARAMETER NAME	MINIMUM VALUE	TYPICAL VALUE	MAXIMUM VALUE	UNIT	NOTE
Wavelength Range	4		12	μm	
Total Output Power	1.3 ×	1.5 ×	1.7 ×		For two identical lasers, compared to individual lasers
Relative Output Power	0.65	0.75	0.85		Losses are lowest for shorter wavelengths
Beam Diameter		3		mm	
Ellipticity	0	0.75			Ellipticity will be close to zero if both lasers have identical power
Line of Sight Deviation			0.2	mrاد	Line of sight deviation between two beams
Dimensions		98 × 115 × 58		mm <sup>3</sup>	
Weight		670		g	