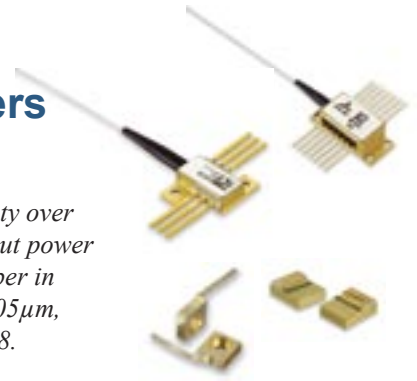




808nm High-Efficiency Single Emitters

Alfalight's generation B 808 nm pump lasers offer over 55% power conversion, low threshold, high slope efficiency, and excellent stability over temperature. Chip-on-carrier packages offer 2.5 watts ex-facet output power on C- and Q-mounts. The fiber-coupled devices offer 2.0 watts ex-fiber in high-reliability cooled or uncooled packages with high-brightness 105 μ m, 0.15NA fiber. Fiber-coupled packages have been qualified to GR-468.



- 55% PCE
- $I_{th} = 0.35A$
- $SE = 1.1 W/A$
- Chip on carrier and fiber-coupled
- Custom wavelengths and powers available
- Microlaser processing
- Light-initiated ordnance
- End-pumped DPSS lasers
- High-reliability/Environmentally-rugged

Device Characteristics*

	Symbol	14-pin Cooled AM4-808B-10-203			6-pin Uncooled AM6-808B-10-203			Chip on Carriers AMC-808B-02-253 AMQ-808B-02-253			Units
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Center wavelength	λ_c	808 \pm 3			808 \pm 3			808 \pm 3			nm
Output power	P_o	2.0			2.0			2.5			W
Operating current	I_o	3.0	3.2		2.4	2.8		2.65	2.85		A
Forward voltage	V_f	1.9	2.1		1.9	2.1		1.7	1.85		V
Threshold current	I_{th}	0.4	0.5		0.45	0.6		0.35	0.5		A
Spectral width	$\Delta\lambda$	2.0	4.0		2.0			2.0	3.5		nm

Temperature and Thermoelectric cooler

Thermistor value at 25°C	R_{th}	9.5	10	10.5	9.5	10	10.5				k Ω
Thermistor constant, 0 - 50°C	β	3892			3892						K
Spectral shift	$d\lambda/dT$	0.35			0.35			0.35			nm/°C
TEC drive current**	I_{TEC}	2.1									
TEC drive voltage**	V_{TEC}	2.8									
Heating/cooling capacity**	ΔT	-65		45							°C

Mechanical

Case operating temperature		-40	70	-40	70	0	50			°C	
Case storage temperature		-40	80	-40	80	0	85			°C	
Fiber core diameter/BAL stripe		105			105			100			μ m
Fiber NA/Divergence	NA	0.15			0.15			8° \times 34°			
Fiber length		1.5			1.5						m
Fiber pull strength		1.0			1.0						kg

* All conditions are at 25°C submount temperature and output power unless otherwise noted.

** 14-pin cooled specifications only.

