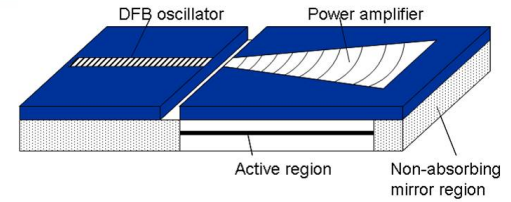




BrightLase® Single Mode Single Emitters

Features

- 1.5 W, 976 nm single transverse mode
- 1.5W, 1040 nm and 1064 nm single frequency and single transverse mode
- 1 W, 1550 nm single frequency and single transverse mode
- BrightLock™ internal gratings technology



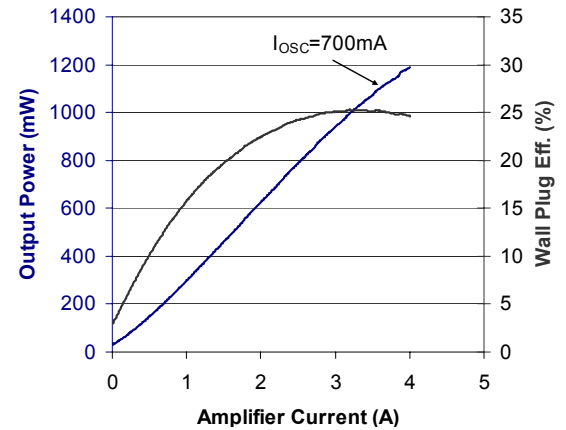
Applications

- Direct materials processing
- Engine for visible lasers
- Fiber laser seeding, core pumping
- Laser communications
- LIDAR
- Remote sensing



Benefits

- High power and high brightness enables direct diode replacement of CW solid state lasers or amplified stage
- High power and high brightness enables excellent frequency doubling efficiency
- Longer working distance, simpler optical design
- Narrow frequency enables precise interferometric measurements



Model Number	4609-0000	4710-0000	4710-0001	4715-0000
Center Wavelength	976 nm	1040 nm	1064 nm	1550 nm
Center Wavelength Tolerance	+/- 5 nm	+/- 5 nm	+/- 3 nm	+/- 5 nm
Spectral width (FWHM)	< 5.0 nm	< 0.1 nm	< 0.1 nm	< 0.1 nm
Typical spectral width	2.5	20 MHz	20 MHz	500 kHz
Operating power	1.5 W	1.5 W	1.5 W	1 W
Emitter width at facet	250 microns	250 microns	250 microns	250 microns
Operating current Amp section	< 2.8 A	< 2.8 A	< 2.8 A	< 4.0 A
Operating current Osc section	< 0.2 A	< 0.2 A	< 0.25 A	< 0.7 A
Voltage Amp section	< 1.5 V	< 1.5 V	< 1.5 V	< 1.5 V
Voltage Osc section	< 1.7 V	< 1.7 V	< 1.7 V	< 3.5 V
Conversion eff.	> 35%	> 35%	> 35%	> 15%
Wavelength temperature coefficient	0.28 nm/°C	0.08 nm/°C	0.08 nm/°C	0.13 nm/°C
Beam divergence, slow axis, FWHM	< 40 degrees	< 40 degrees	< 40 degrees	< 20 degrees
Beam divergence, fast axis, FWHM	< 40 degrees	< 40 degrees	< 45 degrees	< 35 degrees
Astigmatism	360 microns	360 microns	360 microns	470 microns
Polarization	TE	TE	TE	TE
Bonding Configuration	N-side to carrier	N-side to carrier	N-side to carrier	N-side to carrier

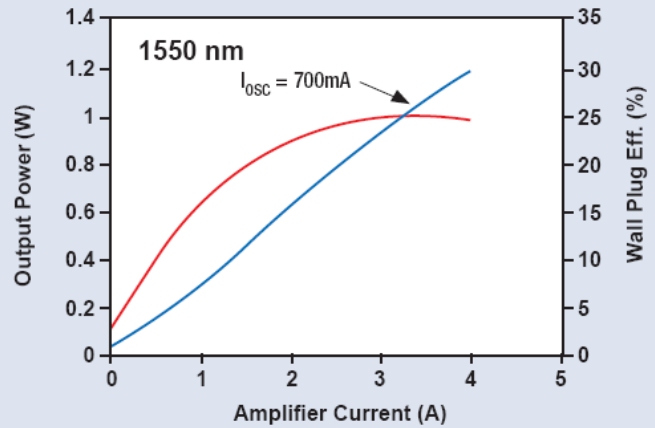
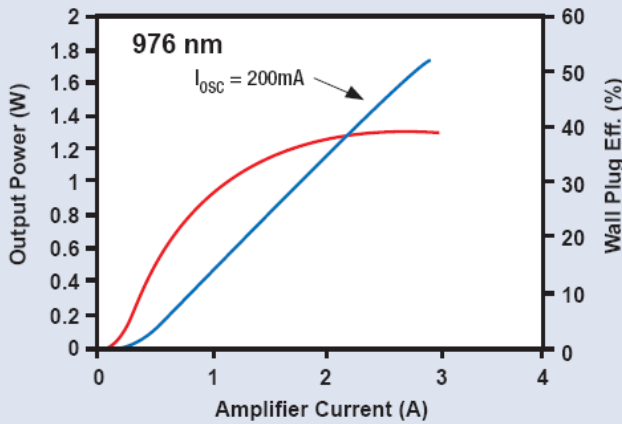
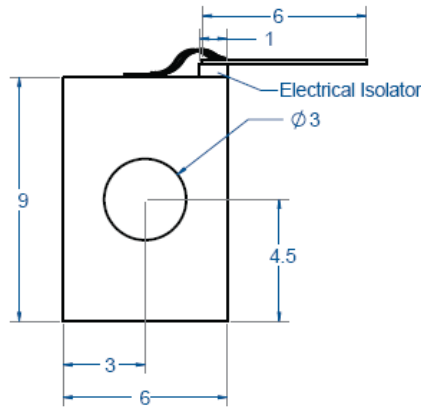
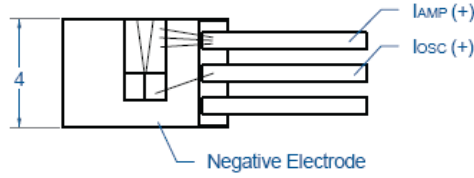
Warning: Class 4 Laser, Invisible Laser Radiation – Avoid Eye or Skin Exposure to Direct or Scattered Radiation.

Laser Operations LLC

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BRIGHTNESS and POWER

Breaking Performance Barriers through Semiconductor Laser Innovation

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