

DFB Quantum Cascade Laser 5.2 μ m 200mW

FNPL-200S-5200-DFB



FNPL-200S-5200-DFB is a DFB quantum cascade semiconductor laser diode operating at 5.2 μ m. It is delivered in standard TO-5 and TO-8 packages with integrated TEC, thermistor and monitor diode, it is also available in a C-mount package. Custom mounts are available upon request.

Key Features

Very high spectral purity
 Excellent reliability
 Variety of packaging options
 Intrapulse and interpulse tuning

Applications

High performance gas sensing
 Gas Sensing NO
 Sensing of liquids
 Free space communications
 Illumination

Optical and electrical characteristics:

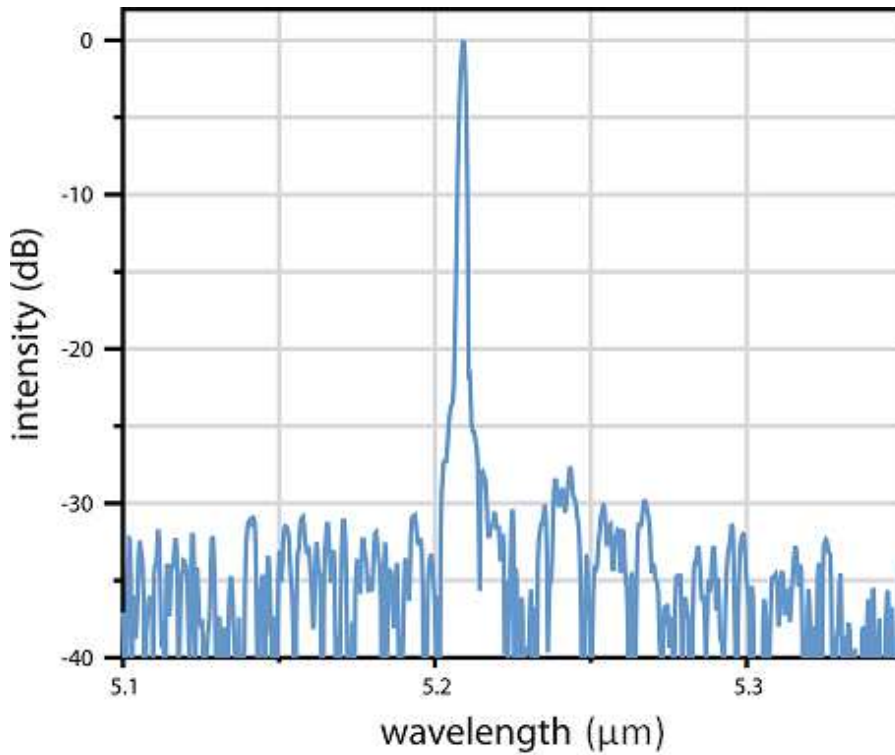
Operating parameters	Symbol	Min	Typ	Max	Unit
Optical Peak Power Output	$P_{out\ peak}$		200		mW
Lasing Wavelength	λ	5.1	5.2	5.3	μ m
Threshold Current	I_{th}	0.5	1.0	1.5	A
Forward Current	I_f		2.5		A
Operating Voltage	V_{op}		12		V
Beam Divergence Parallel	$\Theta_{ }$	20	30	35	deg.
Beam Divergence Perpendicular	Θ_{\perp}	50	55	60	deg.
Emitting Area	WxH	10x8	15x10	30x12	μ m
Slope Efficiency	dP_o/dI_{op}	20	100	200	mW/A
Temperature Tuning rate	C_T	0.45	0.5	0.55	nm/K
Repetition Rate		1 Hz		1 MHz	
Duty Cycle		0		3	%
Pulse Width	T_p	10	-	300	ns

Absolute maximum ratings

- Operating temperature -20°C to +50°C
- Storage temperature -40°C - +80°C

TYPICAL PERFORMANCE

Room Temperature Spectrum at 5.2 μ m



Mode-hop Free Wavelength Tuning

