

Laser Diode

MODULES

375 nm
405 nm
445 nm
488 nm



Visible and UV Lasers

Low Noise

Outstanding Power Stability

Low Power Consumption

Simple to Integrate

Material Analysis

Polymer Curing

Light Scattering

Fluorescence Excitation

Metrology

Specifications

	LDM-375	LDM-405	LDM-445	LDM-488	Unit	Comments
Wavelength	375	405	445	488	nm	tolerance ± 5 nm
Power	15	100	40	50	mW	
Spectral Range	1				nm	
Power Stability	± 1				%	p-p, over 8 hours and ± 3 °C
Optical Noise	< 1	< 0.5	< 0.5	< 0.5	%	rms, 10 Hz - 2 MHz
Beam Dimensions (elliptical)	1.5 x 2.5	1 x 2.5	1 x 2.5	1.5 x 3	mm	at $1/e^2$, at 50 mm from aperture
Beam Divergence (elliptical)	< 0.6	< 0.6	< 0.6	< 1	mrاد	$1/e^2$, full angle, in far field
Polarization Ratio	100:1					

System Parameters

Operating Temperature	10 - 40	10 - 40	10 - 35	10 - 40	°C	ambient temperature
Power Consumption	2.5				W	OEM version, stationary
Start-up Time	1				min	
External Control Interface						
TTL Modulation	10/2				μ s	rise/fall time
Analog Modulation Bandwidth	100	50	100	100	KHz	- 3 dB cut off frequency
Plug and Play Dimensions	34 x 156				mm	\varnothing x L
OEM Dimensions	30 x 150				mm	\varnothing x L
OEM Power Supply Requirements						
Input Voltage	4.8 - 6				V	ripple < 1%
Input Current	< 2				A	at start-up
Weight (Laser Head)	250				g	

Ordering Information

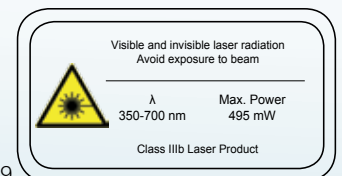
In order to request a laser, build the product code based on the following criteria:

Laser Head	Driver
375-15-COL	-PP
405-100-COL	
445-40-COL	
488-50-COL	-OE

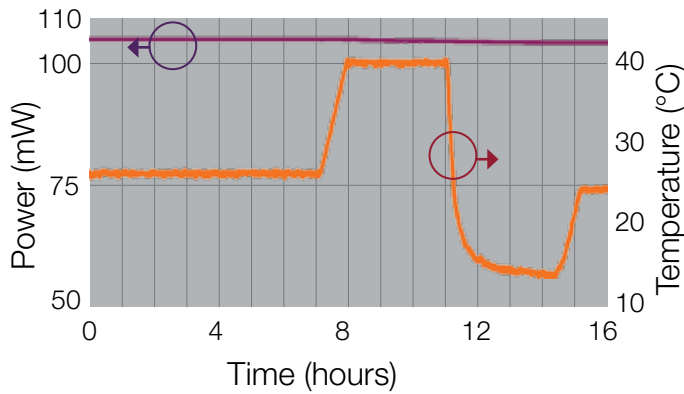
For example: 405-100-COL-PP for a Laser Diode Module, 405 nm, 100 mW, Collimated, Plug and Play version.

Oxxius

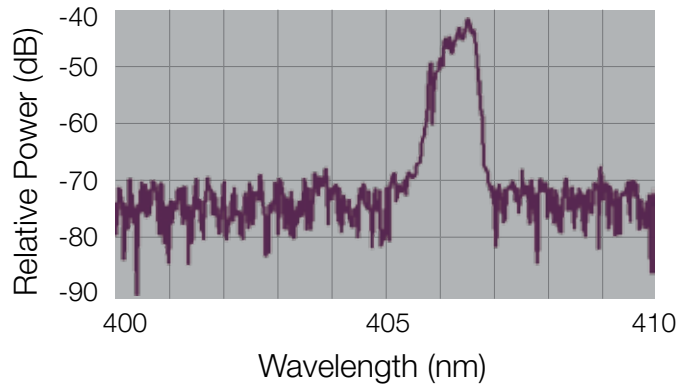
www.oxxi.us.com



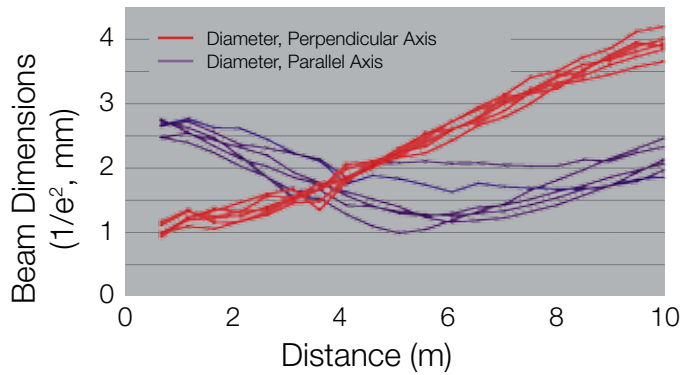
Power Stability vs Temperature



Spectrum of LDM-405



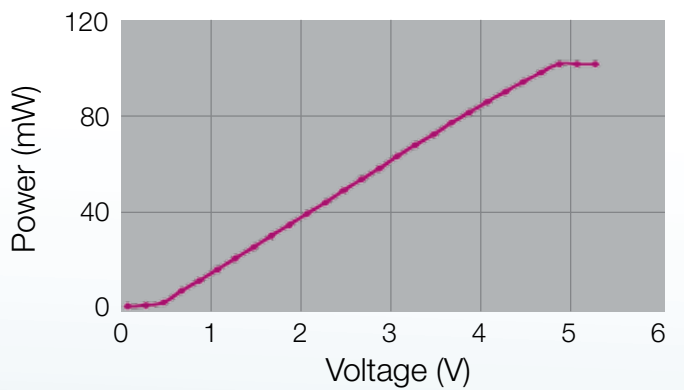
Beam Diameter vs Distance *



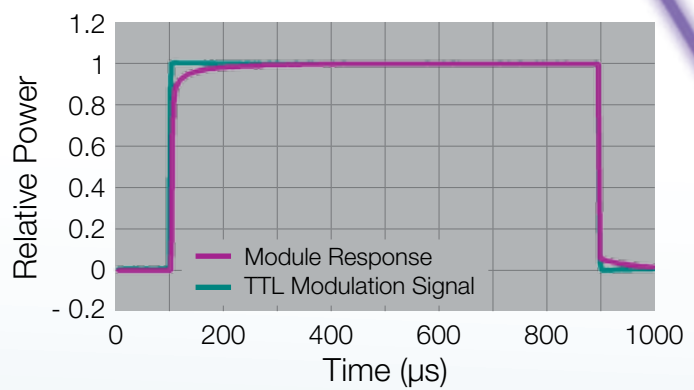
* Measured on six modules



Power vs Analog Input Voltage

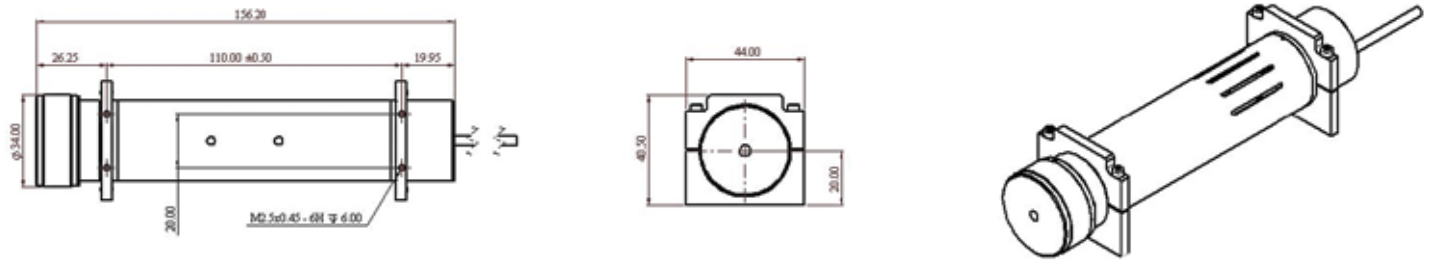


Response to TTL Modulation

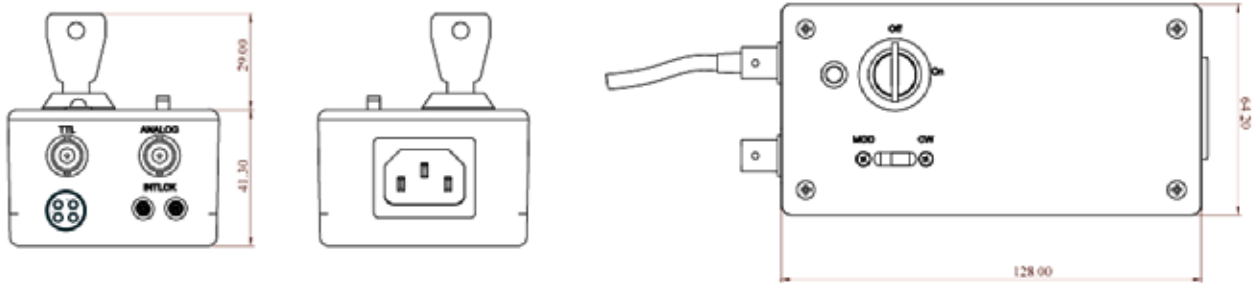


Mechanical Drawings

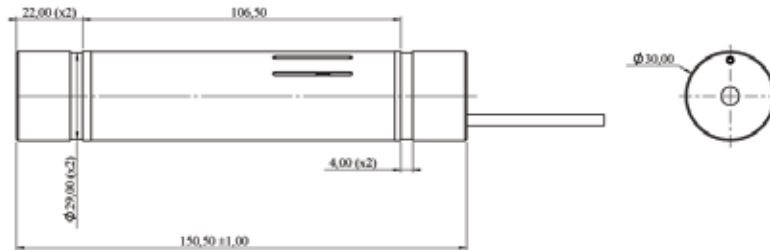
Plug and Play Laser Module



Plug and Play Power Supply



OEM Laser Module



All dimensions in mm

Oxxius lasers are registered with FDA. Accession numbers: 07200339 (Plug & Play version), 07R0452-000 (OEM version).
Oxxius has a policy of continuous product improvement. Specifications may change without notice.

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