

Production and Quality Control Data Sheet *DL pro 780_020067*



QM-Form: F-022

Date Form: 03.03.14

Version: 03

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01 General

SN DL pro 780 :	020067	Version:	3V0
Customer:	The Hebrew University of Jerusalem		
Order Number:	VB.15.00237	Production Date:	09.02.2015

02 Customer`s Specifications

Wavelength:	794.98 nm	Output Power:	140.0 mW
Coarse Tuning:	765nm-805nm	Mode Hop Free Tuning:	30.0 GHz

03 Integrated Isolator

Isolator:	#OK-001235	Serial Number:	00200
Power in front of Isolator:	133.0 mW	Power behind Isolator:	128.0 mW
Extinction:	45 dB	Transmission Loss:	3.8 %

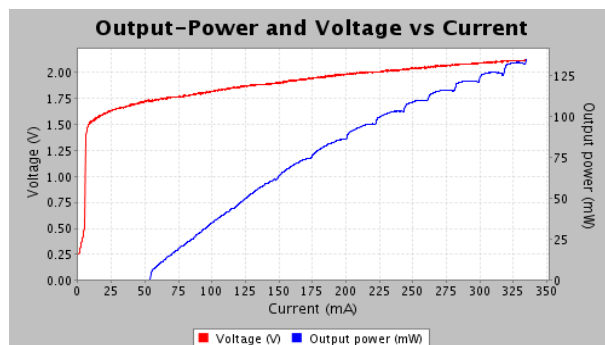
04 Integrated Fiber Coupling

Fiber Coupling not installed

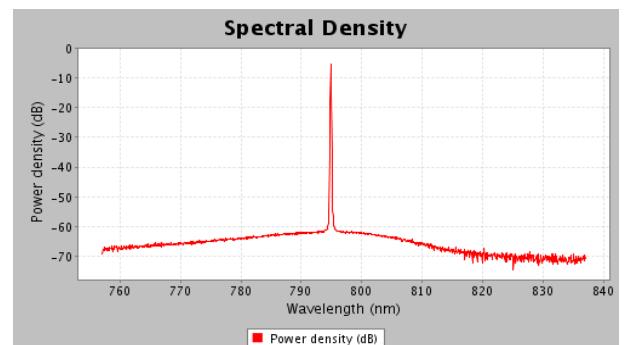
05 Stabilized Diode Laser

Wavelength:	794.9 nm	Lasing Threshold:	46 mA
Resonator Type:	A	Slope Efficiency:	0.467 W/A
Polarisation:	13.0		

Output Power vs. Current Characteristics:



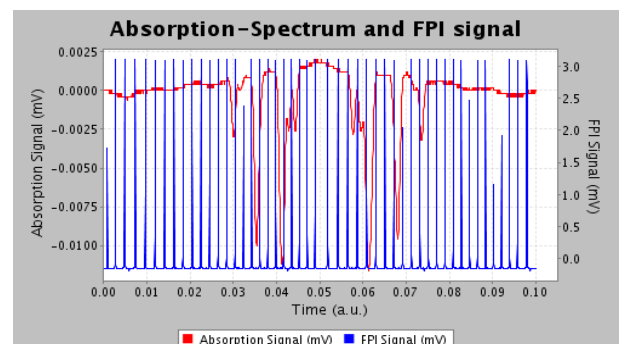
Optical Spectrum (RBW = 0.05 nm):



Factory Settings:

Set Power:	133.0 mW
Set Current:	333.4 mA
Set Temperature:	20.6 °C
Mode Hop Free Tuning:	22 GHz
Scan Amplitude:	49 V
Scan Offset:	70 V
Feedforward-Factor:	-0.4 mA/V

FPI Signal (FSR= 1GHz) :



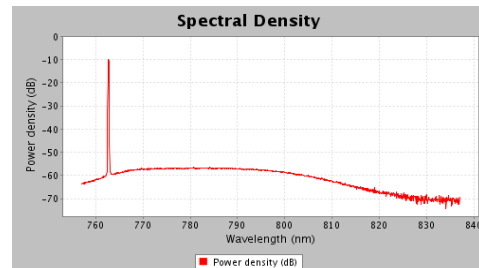
Maximum Values:

Maximum Power:	135.0 mW
Maximum Current:	335 mA
Maximum Voltage:	2.4 V
Maximum MHFTR:	60 GHz @ 306.6 mA

06 Coarse Tuning

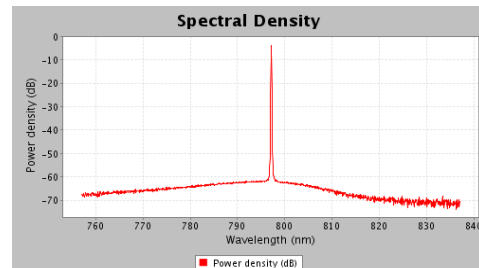
Minimum Wavelength: 762.7 nm
Lasing Threshold: 138 mA
Temperature: 20.0 °C
Maximum Power: 56.3 mW
Maximum Current: 331 mA

Optical Spectrum (RBW = 0.05 nm):



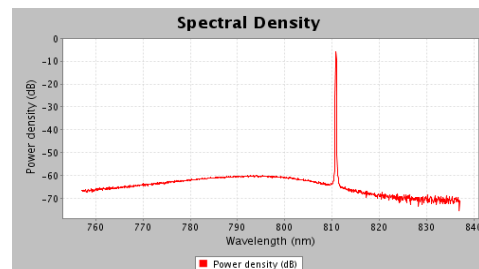
Gainmaximum: 797.2 nm
Lasing Threshold: 49 mA
Temperature: 20.1 °C
Maximum Power: 135.4 mW
Maximum Current: 331 mA

Optical Spectrum (RBW = 0.05 nm):



Maximum Wavelength: 810.8 nm
Lasing Threshold: 151 mA
Temperature: 20.0 °C
Maximum Power: 104.1 mW
Maximum Current: 331 mA

Optical Spectrum (RBW = 0.05 nm):

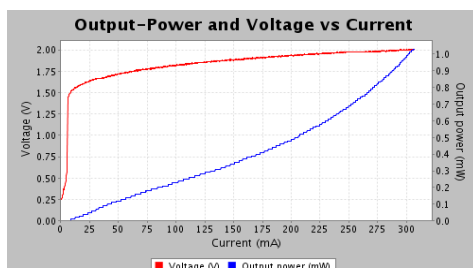


07 Free Running Laser Diode

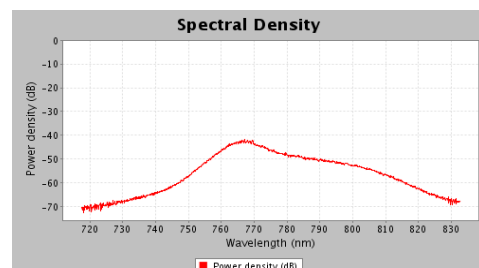
Wavelength: 767.1 nm
Lasing Threshold: 4 mA
Maximum Power: 1.0 mW
Maximum Current: 307 mA

Temperature: 20.1 °C
Slope Efficiency: 0.003 W/A

Output Power vs. Current Characteristics:

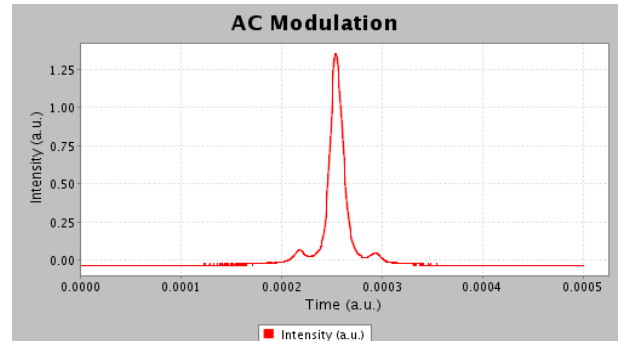


Optical Spectrum (RBW = 0.05 nm):



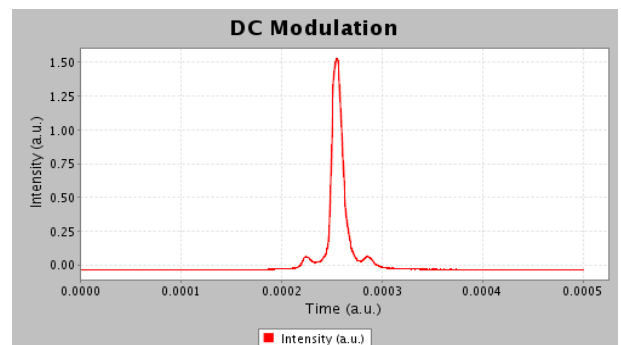
08 RF-Modulation (AC coupled)

Modulation Frequency: 10 MHz
RF Power (50 Ω -Source): 5.0 dBm



09 RF-Modulation (DC coupled)

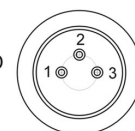
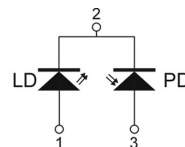
Modulation Frequency: 10 MHz
RF Power (50 Ω -Source): 5.0 dBm



10 Laser Diode

Article Number: #LD-0790-0120-AR-1
Serial Number: 96734
Diode configured: for positive operation

Laser Diode Pinning :



Pin1: LD Anode
Pin2: Common, GND
Pin3: PD Anode

Positive Laser Diode
(Bottom View)

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11 Laser Optics

Collimator Lens: #OK-000813 **Optical Grating:** #OK-000347
Beam Steering Mirror: #OK-001117

12 Electronics / Software

DLC PRO: 020086
Password: Maintenance : CAUTION Service : mTc0aWUJ
Installed options: Lock
COSY FC-RB: 1387900

13 Jumper Settings Plug-in Modules

CC-500: 500 mA

14 Comments

Due to poor PER of the integrated laser diode, all power measurements in this data sheet were done behind a polarizer. The power out of the resonator without filtering of this polarizer was measured at 150 mW.

15 Quality Control

Production: _____ **Date:** 09.02.2015
Kreibich Horst

Final Check: _____ **Date:** 09.02.2015
Kreibich Horst