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

TOPTICA PHOTONICS

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 %

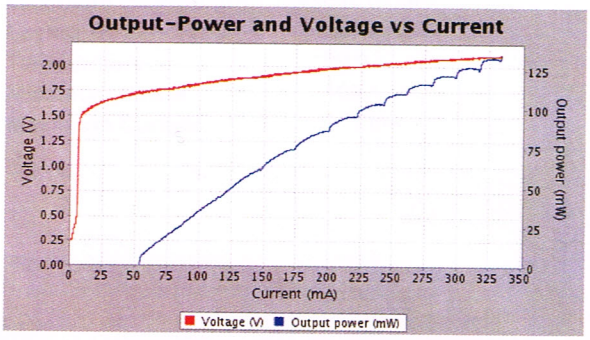
04 Integrated Fiber Coupling

Fiber Coupling not installed

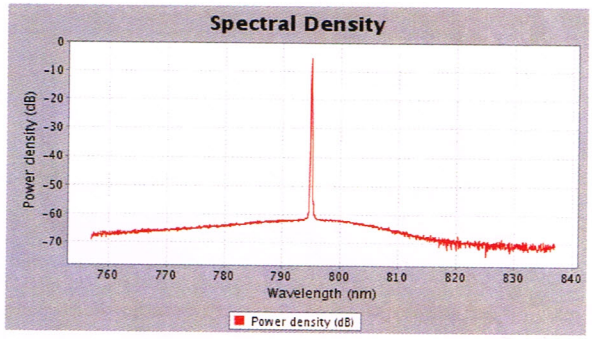
05 Stabilized Diode Laser

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):



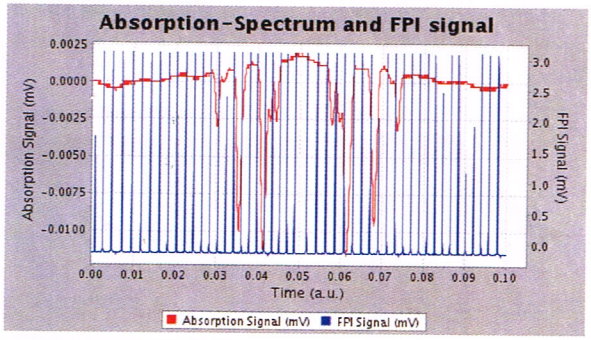
Factory Settings:

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

Maximum Values:

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

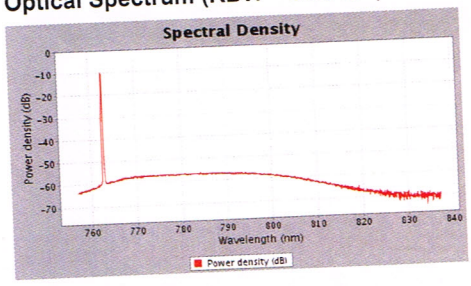
FPI Signal (FSR= 1GHz) :



06 Coarse Tuning

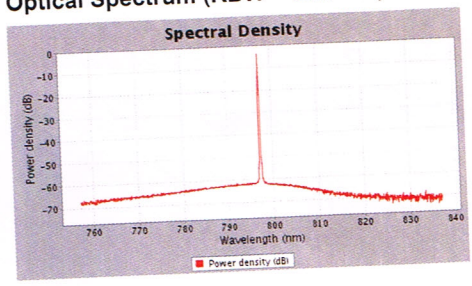
Minimum Wavelength:	762.7 nm
Lasing Threshold:	138 mA
Temperature:	20.0 °C
Maximum Power:	56.3 mW
Maximum Current:	331 mA

Optical Spectrum (RBW = 0.05 nm):



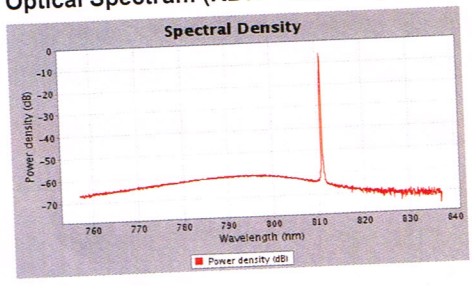
Gainmaximum:	797.2 nm
Lasing Threshold:	49 mA
Temperature:	20.1 °C
Maximum Power:	135.4 mW
Maximum Current:	331 mA

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):

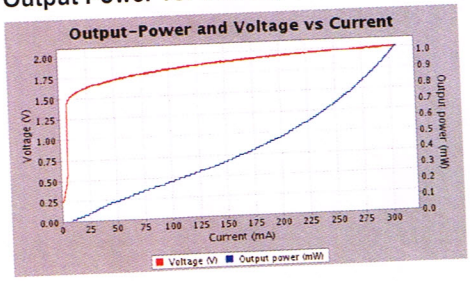


07 Free Running Laser Diode

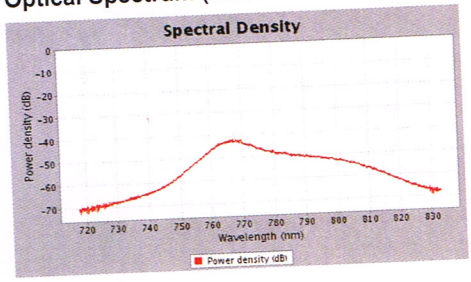
Wavelength:	767.1 nm
Lasing Threshold:	4 mA
Maximum Power:	1.0 mW
Maximum Current:	307 mA

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

Output Power vs. Current Characteristics:

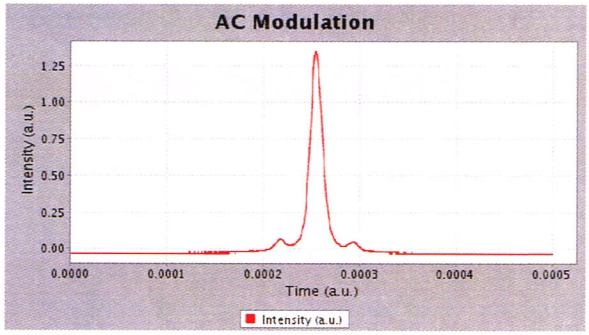


Optical Spectrum (RBW = 0.05 nm):



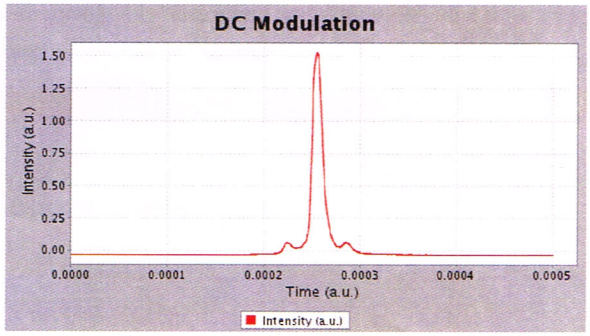
08 RF-Modulation (AC coupled)

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



09 RF-Modulation (DC coupled)

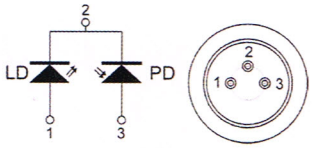
Modulation Frequency: 10 MHz
RF Power (50 Ω -Source): 5.0 dBm



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)

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: Kreibich Horst **Date:** 09.02.2015

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