

Technical Specifications

Model	Units	520 Dual 13/15		520 Dual 85/13		520 Single			
Wavelength	nm	1310 Laser	1550 Laser	850 VCSEL	1310 Laser	650 Laser	850 VCSEL	1310 Laser	1550 Laser
Wavelength Range	nm	+/- 20	+/-20	+/-20	+/-20	+/-20	+/-20	+/-30	+/-30
Spectral Width (FWHM)	nm	2	2	2	2	3	2	2	2
Stability 1 hr. max. deviation	dB	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Power Output (Set Point min.) 9/125 SMF 50/125 .21 NA GI MMF 62.5/125 0.23 NA GI MMF 100/140 0.29 NA GI MMF 200/240 0.22 NA SI MMF*	dBm	-10 -10 -10 -10 -10	-10 -10 -10 -10 -10	N/A -5** -5 -5 -5	N/A -3** -3 -3 -3	0 0 0 0 0	N/A -5** -5 -5 -5	-10 -10 -10 -10 -10	-10 -10 -10 -10 -10
Modulation Frequencies	Hz	270, 1000, 2000		270, 1000, 200 + External Modulation Capable up to 1 MHz					
Functions		MOD (CW DC or modulated output mode), SOURCE (selectable frequency)							
Auto Shutoff/ Shutoff Disable		Unit powers down 15 min. after last key has been depressed. User-selectable disable function							
Power	V	Requires one 9 Volt alkaline battery (>20 hrs. battery life*) or Cercis 120 V AC Adaptor							

Specifications subject to change without notice.

*Typical

BOLD TYPE are standard Laser/VCSEL sources.

All sources are standard with **BOLD typed fiber interface. Use of same size or larger fibers (*italic*) will yield the same output power since the unit contains a fiber-pigtailed source.

Battery / AC Adaptor

The battery is easily replaced via the back sliding compartment door. The light source should be "OFF", and the battery properly connected and seated within the compartment. Connect the lead from the A604 or A605 interchangeable AC adaptor to the side of the unit, then plug the adaptor into an outlet—120V and 90-240V (47-63 Hz), respectively.

External Modulation

The external modulation port is intended to provide a simple, digital optical signal from an input electrical signal. Connection is made through an electrical SMA connector at the top of the light source. An input signal of 0—5 Volt (max.) is converted into a pulse waveform at the input signal frequency. A frequency up to 1 MHz can be applied.

Warning

Operation of this Laser/VCSEL Light Source must conform to the specifications and instructions provided herein. Please read and understand the entire contents of this manual before operation.

Connector Interface Cleaning

It is important that the connector interface be kept clean and free of contamination. Prior to insertion of any connector into the light source optical port(s), proper cleaning of the connector should be done to industry-standard procedures. Various cleaning methods include commercial adhesive cleaners (CLE-TOP, etc.), or swabbing the connector end with alcohol and dusting/drying with canned air.



Adaptors

Cercis offers an option of interchangeable click-on/click-off precision machined stainless steel connector adaptors. Standard SC, FC, ST & 2.5 mm ferrule universal adaptors are available.

Calibration and Maintenance

Each **Cercis** light source is calibrated to NIST traceable standards. The unit should be returned to **Cercis** on an annual basis for recalibration.

Cercis, Inc.
25 Rt. 31 South, Ste. C 2030
Pennington, NJ 08534
TEL: 609-737-5120
FAX: 609-564-0546
EMAIL: info@cercis.com
URL: www.cercis.com

Thank you for purchasing a **Cercis Model 520 Laser Light Source**. This product is designed to provide many years of productive service.

Cercis, Inc.	
On/Off	AUTO SHUTOFF(default) Depress key & hold ~1 sec. For NO SHUTOFF
Source	Turn source on/off; depress for +/- 1 dB
MOD	Dual Source: Depress 1X for 1st; 2X for 2nd; hold for +/- 1 dB 1X—270 Hz 2X—1000 Hz 3X—2000 Hz (Single Only) 4X—External modulation
Serial No:	
Part No:	
NIST Traceable	Cal:
Due:	

The label shown at left is on the back of each **Cercis Laser Light Source**. Included are brief operating instructions, annunciator meanings, unique serial number, **Cercis** part number, the calibration date and recalibration due date.

Limited Warranty

Cercis makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that the product be free from defects in materials and workmanship: 1 year limited warranty (unless otherwise specified). Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alternations made outside our facilities or to a lack of maintenance. Cercis limits all implied warranties to the period specified above from the date the product was purchased. Except as stated herein, any implied warranties of merchantability and fitness are excluded. Cercis shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damage arising from the use of its products. To take advantage of this warranty, the product must be approved for return for examination, postage prepaid, to Cercis. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, Cercis will either repair or replace the product with a product of equal or higher performance. If it is determined that the defect resulted from causes not within the scope of Cercis warranty, then the purchaser must bear the cost of repair and return shipping.

Operator's Manual



Model 520 Laser/VCSEL Light Source

Easy as 1, 2, 3 ... or

Operating Instructions

1) Depress **ON/OFF** key to turn the light source on and off. The default is **AUTO SHUTOFF** which automatically turns off the light source if a key is not depressed within 15 minutes. Depress any button within the 15 min. interval to restart the timer.

Override to **NO AUTO SHUTOFF** by holding the **ON/OFF** key down ~ 1 second; disabling the power saver feature and the light source will not shutoff until (unless) the battery discharges or an operator pushes **ON/OFF**.

2) Press and release the **SOURCE** key to activate the source.

Single Source: Calibrated output power.

Depress and hold **SOURCE** key to cycle the power up 1 dB or down 1 dB from the calibrated output power level (std see Table).

(continued next page)

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On/Off, Source & MOD

Dual Source: Depress **SOURCE** 1X to illuminate the 1st source (850 nm); depress 2X for the 2nd source (1310 nm). Depress and hold **SOURCE** key to cycle either source up 1 dB or down 1 dB from the calibrated output power level (std. see Table next page). All calibrated wavelength options are NIST traceable.

3) Press **MOD** key 1X for 270 Hz modulation (the green indicator LED slowly blinks); 2X for 1000 Hz modulation (the indicator LED blinks faster); 3X for 2000 Hz modulation (the indicator LED blinks rapidly). For single sources, depress 4X for external modulation (up to 1 MHz—the indicator LED will remain illuminated). Depressing MOD again will turn off modulation. Modulation can also be turned off by depressing **SOURCE** key or **ON/OFF** (which will turn the light source off) key.

For optimum results, select the light source best suited to your power meter range.



Reference this manual for proper operation and maintenance of your **Cercis Model 520 Laser Light Source**.