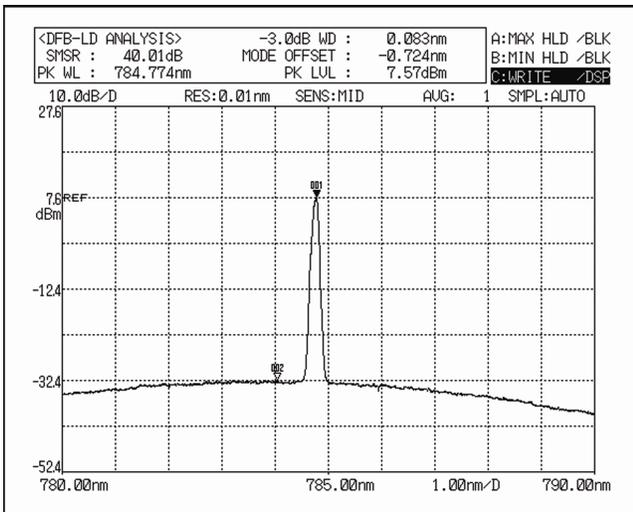


# Spectrum Stabilized Raman Laser Subsystems

## ➤ Laser Subsystem Features

- >350 mW Fiber Coupled Output Power
- Spectral Linewidth < 0.15 nm
- Ultra-narrow Spectral Linewidth option  $1 \text{ cm}^{-1}$
- Temperature Stabilized Spectrum ( $< 0.007 \text{ nm}^{\circ}\text{C}$ )
- Low Power consumption ( $< 5.5 \text{ W}$ )
- 40 dB SMSR Typical
- 3" x 2.5" x 0.69" Package Weighing < 4 oz



Typical Spectral Plot

Laser features high output power with narrow spectral bandwidth. The laser’s stabilized peak wavelength remains “locked” regardless of case temperature (-10 to +55 deg. C). Devices can be spectrally tailored to suit application needs and offer side mode suppression ratios (SMSRs) better than 40 dB, thereby providing extremely high signal to noise ratio and making these sources ideal for Raman spectroscopy and pump laser applications. The laser is integrated with high performance laser drive and temperature control electronics in a compact package weighing less than 4 oz.

Parameter	Unit	Min	Typ	Max	Notes
Optical output power	mw	350	375		
Output power stability	%		± 1		
Peak wavelength	nm	784.5	785	785.5	
3 dB bandwidth (FWHM)	nm		0.1	0.15	
Peak wavelength drift	nm			± 0.10	over life
Optical signal-to-noise ratio (SMSR)	dB	35	45		
Warm-up time	sec			10 / 1.5	cold/warm start

Item	Description	
	<b>Miniature Laser Subsystems for Raman Spectroscopy</b>	
SSR-Laser-785-350	Spectrum Stabilized Laser Subsystem @ 785nm with $<4 \text{ cm}^{-1}$ resolution, 350mw	
SSR-Laser-785-500	Spectrum Stabilized Laser Subsystem @ 785nm with $<4 \text{ cm}^{-1}$ resolution, 500mw	

All data and statements contained herein are subject to change in accordance with StellarNet’s policy of continual product improvement. Please contact us about availability of additional laser frequencies used for Raman such as 532 / 647 / 830 / 1064nm.

# Laboratory Laser Source for Raman Spectroscopy

Designed for use in the laboratory, the user configurable **Lab-LS** laser system provides a turn-key solution with integral laser drive and TEC control electronics, and offers the user the ability to adjust the laser drive current from either the front panel or remotely.

The module has a digital readout for easy set point adjustment, an independent master power key switch and laser enable switch, a remote interlock, and an Emergency Power Off (EMO) pushbutton.

The **Lab-LS** can be ordered with SMA905 or FC/PC or FC/APC bulkhead for easy patch cord attachment. The unit comes complete with an integral AC/DC power supply.

User interchangeable Lab-LS laser modules can be ordered with a variety of standard Raman wavelengths with either single mode (Polarization Maintaining) or multi-mode fiber coupled output.



The **Lab-LS** is a controller mainframe that lets you change in and out laser subsystem modules at will. This fully turn-key unit is **UL/CE & IEC approved**. The **Lab-LS** system provides the ability to adjust laser output power by turning a dial on the front panel and reading out the LED readout.

The small size and AC/DC operating power allows for great portability and use around the Lab or in the Field! The ultimate benefit is having a laser source that can be quickly switched to handle a different Raman wavelength for excitation. A specific sample type may have too much fluorescence at 785nm, however swapping to a 1064nm laser subsystem solves this problem.

Item	Description	
Lab-LS-785	Laboratory Laser Source mainframe with one SSR-Laser-785-350	
SSR-Laser-785-350	Additional Laser Subsystem @ 785nm with $<4 \text{ cm}^{-1}$ resolution, 350mw	
SSR-Laser-785-500	Additional Laser Subsystem @ 785nm with $<4 \text{ cm}^{-1}$ resolution, 500mw	

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