

Narrow Linewidth Semiconductor Laser Source

A. PRODUCT DESCRIPTION

The Wintek technology WT-NLL-XXXX (XXXX denotes peak wavelength selection) is a series of single frequency DFB or FBG semiconductor laser source designed for applications in optical metrology & instrumentation and optical gas & chemical sensing, requiring narrow spectral linewidth, excellent SMSR, power stability, and a very highly wavelength stable laser output.

B. FEATURES

- Built-in current driver and temperature controller
- Excellent Output power stability
- Excellent Wavelength stability
- Narrow Laser Linewidth
- Short warm-up time

C. SPECIFICATIONS

Central Wavelength	650, 850, 980, 1064, 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625nm
Wavelength Accuracy	+/-1nm
Spectrum Linewidth @-3dB	<0.2nm
SMSR	>30dB
Output Power	>10mW
Output Power Stability	<1%
Laser Wavelength Stability within 3 hours	<0.1nm
Operation Mode	CW
Fiber Type	Single Mode Fiber
Fiber Connector Type	FC/APC
Power Supply	220V±10%, 50Hz
Operation Temperature	0 ⁰ C~+40 ⁰ C
Storage Temperature	-20 ⁰ C~+70 ⁰ C
Storage Relative Humidity	5-85%
Dimensions	270×200×80mm(only for reference)

D. Appearance of equipment (only for reference)



E. Appendix

**Test Report for 1064nm Narrow Linewidth Semiconductor Laser Source
(model: WT-NLL-1064)**

0. Test Instrument

Spectrometer: AQ6370C
Optical Power meter: OPM

2. Test Conditions

- (1) Power: 220V/2A
- (2) Environment temperature: $25\pm 2^{\circ}\text{C}$
- (3) Environmental relative humidity: 25%-75%
- (4) Pressure: 86-106kPa

3. Device Under Test

Model: WT-NLL-1064



4. Test Results

Parameters	Specifications	Test Results
Central Wavelength	1064+/-1nm	1063.418nm
Laser Wavelength Stability within 3 hours	<0.1nm	0.008nm
Output Power	>10dBm	10.8dBm
Output Power Stability	<1%	0.95%
Spectrum Linewidth @-3dB	<0.2nm	<200MHz
SMSR	> 30dB	41dB

5. Optical Spectrum



