

## RIO Colorado Tunable Laser Source

### A compact and turn-key benchtop laser source based on industry-proven External Cavity Lasers

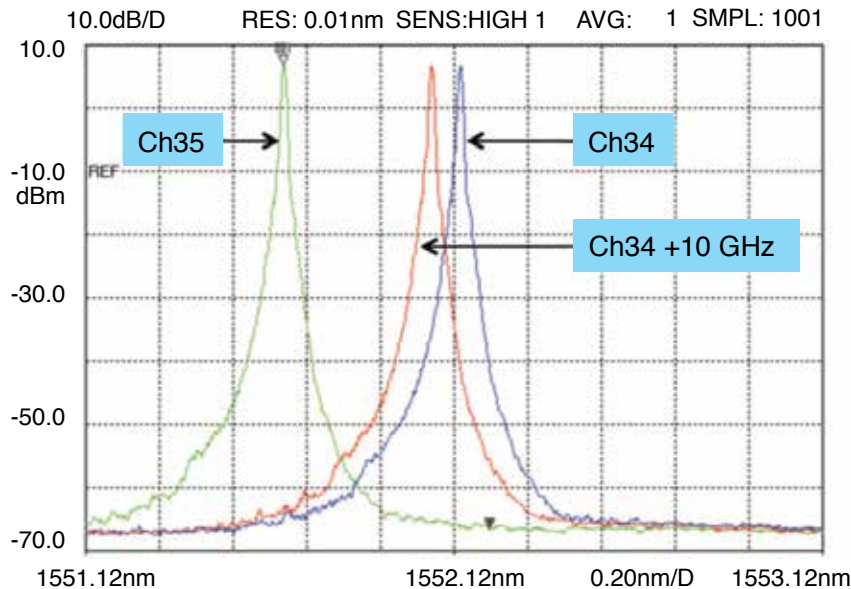
The new RIO Colorado Tunable Laser Source is an impressive feature-rich extension of RIO's game-changing ORION™ and PLANEX™ product series. The RIO Colorado laser source is designed with the customer's need in mind: user-friendly, highly integrated and turn-key operation.

In addition to unrivaled reliability and performance, the RIO Colorado laser source laser-based provides exceptional value and ease-of-use with 20mW output power, wide wavelength tunability, C- or L-band wavelength options, very low RIN, low phase noise and narrow linewidth, very fast frequency and amplitude modulation.

This solution is positioned for reducing the development cycle time and allow for simple integration into R&D lab environments, coherent communication architectures and advanced fiber optic sensing systems. External monitoring and control can be achieved via a Graphical User Interface (GUI) and a USB connection.



### OPTICAL SPECTRUM, SMSR >73 dB



### KEY FEATURES

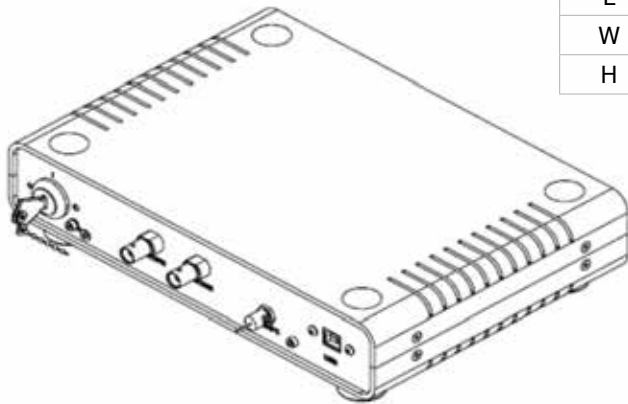
- Wide wavelength tuning across C-band (L-band optional)
- Single longitudinal mode
- Low phase and frequency noise
- Ultra low RIN
- Excellent SMSR
- PM output
- Fast frequency modulation
- Amplitude modulation
- Turn-key and small footprint
- USB interface with Graphical User Interface
- Telcordia qualified

## Performance Highlights

PARAMETER	VALUE	UNIT
Output Power	20	mW
Spectral linewidth (Lorentzian)	≤35kHz, 25kHz typical	kHz
Relative Intensity Noise (at frequency >25 MHz)	≤ -165	dB/Hz
C-band wavelength tuning range	1527.60 to 1565.60	nm
Wavelength tuning resolution	1	MHz
Continuous wavelength tuning range	12	GHz
Frequency modulation range (pk-pk)	> 500	MHz
Frequency modulation speed	Up to 100	kHz
Operating case temperature range	15 to 50	°C

### Mechanical Diagram

Units: mm



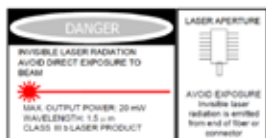
DIMENSIONS		UNITS
L	180	mm
W	260	
H	55	

### Ordering Information

R I O 3 2 3 5 - 5 - X X - 0

<b>Controller Interface</b>		<b>Wavelength</b>	
3	USB	03	C-band tunable
		04	L-band tunable
<b>Fiber/Connector *</b>		<b>Output Power</b>	
5	PM/FC-APC	5	20 mW

\* Contact RIO for other fiber/connector option availability.



### Laser Safety Information

The Colorado Tunable Laser Source is classified as FDA/CDRH Class IIIb laser products per CDRH, 21 CFR 1040 laser safety requirements.

## APPLICATIONS

- Acoustic and seismic sensing
  - Defense and security
- Oil & Gas - exploration and production
- LIDAR and remote sensing
- Interferometric fiber optic sensing
  - Metrology
- RF and microwave photonics



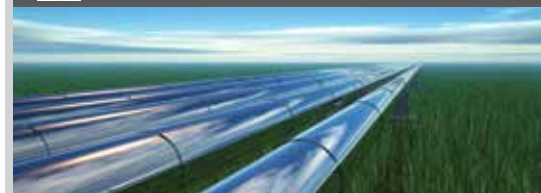
### Oil & Gas



### Wind



### Security



### Infrastructure



### Metrology



For ordering or technical information contact  
**REDFERN INTEGRATED OPTICS**  
 3350 Scott Blvd Bldg 1 | Santa Clara CA 95054 | USA

P 408 970 3500 x 310  
 F 408 970 3200  
 sales@rio-lasers.com

