

LIGHT THAT MAKES PERFECT SENSE™

RIO Colorado Tunable Laser Source

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

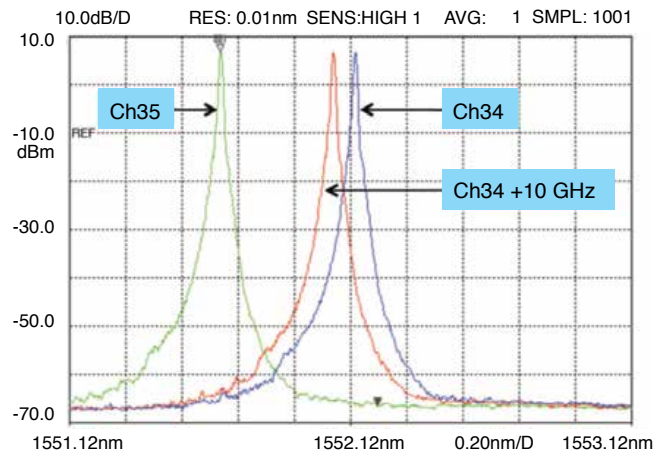
The new RIO Colorado Tunable Laser Source is an impressive feature-rich extension of RIO's game-changing ORION™ and PLANEX™ product series. The RIO Colorado laser source is designed with the customer's need in mind: user-friendly, highly integrated and turn-key operation.

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

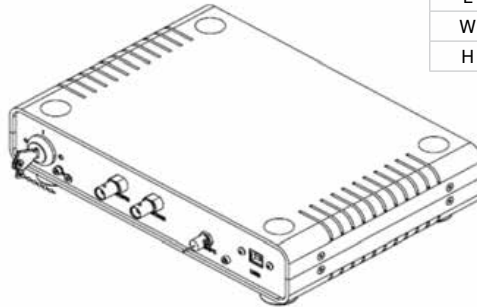
- Wide wavelength tuning across C-band (L-band optional)
- Single longitudinal mode
- Low phase and frequency noise
- Ultra low RIN
- Excellent SMSR
- PM output
- Fast frequency modulation
- Amplitude modulation
- Turn-key and small footprint
- USB interface with Graphical User Interface
- Telcordia 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 |
| W | 260 |
| H | 55 |

Ordering Information

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

| Controller Interface |
|----------------------|
| 3 USB |

| Fiber/Connector * |
|-------------------|
| 5 PM/FC-APC |

| Wavelength |
|-------------------|
| 03 C-band tunable |
| 04 L-band tunable |

| Output Power |
|--------------|
| 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