

Model 652

980 nm Tunable Laser Source

Unique Capabilities

In the past, only OSA solutions could be used to characterize components at 980 nm, but wavelength and IL errors were significant. The Model 652 addresses this issue by allowing swept characterization with high wavelength and IL accuracy.

Summary

- 960-995 nm
- Fast sweeping from 0-100 nm
- Ideal for fiber Bragg grating, wavelength locker and sensing applications

980-band Tuning Range

With standard tuning range of 35 nm, the Model 652 can cover many fiber Bragg grating, wavelength locker and sensing applications.

Built-In Variable Attenuator

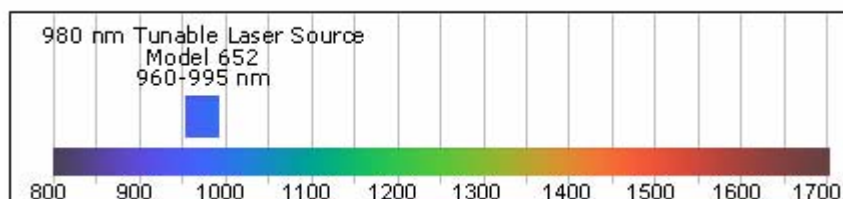
The built-in variable attenuator eliminates SMSR, SSE (Signal to Spontaneous Emission), STSE (Signal to Total Spontaneous Emission) and noise problems usually associated with laser sources that use laser diode current control to attenuate the optical output. This built-in attenuator eliminates the need for an external attenuator.

980 nm Tunable Laser Source



Rugged, Reliable

The Model 652 is one of the most reliable Tunable Laser Sources available. Our experience, in combination with that of our partner, New Focus™, in designing and developing deployed tunable lasers has helped make the Model 652 a factory tunable laser with the quality of a deployable laser. Shock and vibration are fully specified to ISTB Procedure 2B.



Model 652: 980 nm Tunable Laser Source Specifications

Wavelength range	960-995 nm
Wavelength range, mode-hop free	960-995 nm
Tuning speed	1-100 nm/s
Wavelength resolution	0.1 pm
Absolute wavelength accuracy	< ±30 pm
Wavelength repeatability	< 2.5 pm
Wavelength stability	< ±5.0 pm
Tuning linearity	< 1 pm with Option 410 (actual wavelength readout)
Linewidth	< 100 kHz (30 kHz line; ± 30 kHz chirp)
Output power	> +6 dBm
Optical power repeatability	< ±0.01 dB
Optical power stability	Operates constant current
Optical power flatness	Operates constant current
Side mode suppression ratio (SMSR)	> 50 dBc typical
Signal to source spontaneous emission ratio (SSE)	> 45 dB (965-990 nm) > 35 dB (full range)
RIN	-140 dBc (0.1 GHz to 1 GHz); -150 dBc/Hz (1 GHz to 2.5 GHz) typical
Connector	FC/APC PM
Trigger output	Yes; trigger pulse at beginning of continuous sweep or on each wavelength step after settle in step sweep mode
Remote interfaces	GPIO (IEEE-488), Ethernet and RS-232
Power	90-240 VAC
Environmental: Operating	+15 °C to +35 °C (+59 °F to +95 °F); < 80% RH non-condensing
Environmental: Storage	-20 °C to +70 °C (-4 °F to +158 °F); < 80% RH non-condensing
Size	16.8" w x 16.4" d x 5.25" h (42.6 cm x 41 cm x 10.5 cm)
Weight	17 lbs (7.7 kg)
Shock/vibration	ISTB Procedure 2B; 100G non-condensing
Laser safety	Class 3B (FDA 21 CFR 1040.10); Class 3A (IEC 825-1; 1993)

CAUTION: Viewing the laser output with certain optical instruments (e.g., eye loupes, magnifiers, microscopes) within a distance of 100 mm may pose an eye hazard.