

NEW

High Power Tunable Laser TSL-510H

The TSL-510H is a high performance external cavity design tunable laser, guaranteed to emit >100mW high-power at the optical fiber output. The total tuning range is 1510-1630nm; the high power range is selectable as C-band or L-band. As a high specification laser, TSL-510H achieves high SNR (Signal to Noise Ratio) of 65dB or more. The Type C TSL-510H includes a high accuracy wavelength meter which increases the wavelength accuracy to better than $\pm 5\text{pm}$ and the wavelength stability to better than $\pm 0.5\text{pm}$.



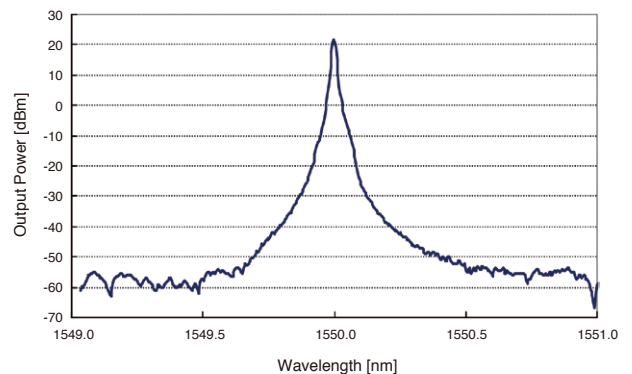
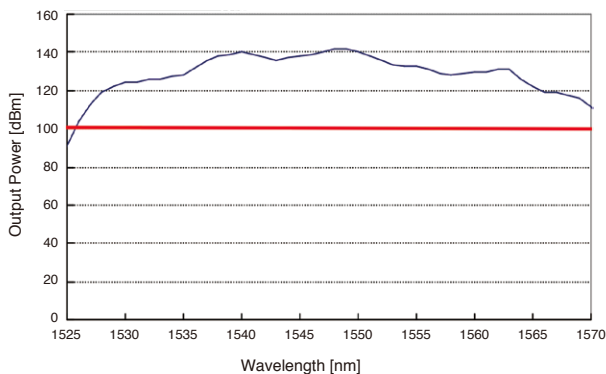
Features

- ▶ >100mW high output power (C-band or L-band)
- ▶ SNR>65dB
- ▶ Mode-hop-free wavelength sweeps
- ▶ 100nm/s sweep speed

Applications

- ▶ Millimeter-wave and terahertz-wave generation
- ▶ Nonlinear optics effect research
- ▶ Fiber optic sensors
- ▶ Device testing
- ▶ Fiber optic transmission testing

Output Characteristics



■ Specifications

Category	Parameter		Unit	Specification	
				Type A	Type C
Wavelength Characteristics	Tuning range	(>100mW)	-	C-band (1530-1565) or L-band (1570-1605)	
		Full tuning range	nm	1510-1630	
	Resolution		pm	5 (<1pm with fine tuning)	1
	Accuracy		pm	< ±30 ^{*4}	< ±5
	Repeatability		pm	< ±10	< ±2
	Stability ^{*1}		pm	< ±5	< ±1 (<±0.5 (Typ.))
	Sweep Speed		nm/sec	1 to 100	
Output Power Characteristics	Output power	Peak	dBm	≥+20 (≥100mW) (C-band (1530-1565) or L-band (1570-1605))	
Spectrum	Typically linewidth	Coh. Control OFF	kHz	350 (Typical)	150 (Typical)
		Coh. Control ON	MHz	50 (Typical)	
	SMSR		dB	> 45 (Typical)	
	Signal to Total Source Spontaneous Emission Ratio ^{*2}		dB	> 65 (Typical)	
	Signal to Source Spontaneous Emission Ratio ^{*3}		dB/nm	> 70 (Typical)	
Interface	Optical Output Connector		-	FC or SC, APC	
	Optical Fiber		-	SMF or PMF	
	Communication		-	GP-IB (IEEE 488.2), USB	
Modulation	LF modulation		kHz	DC to 10	
Environmental Conditions and others	Operating	Temperature	°C	15 to 35	
		Humidity	%	< 80	
	Power supply		V, Hz	AC100-240±10%, 50/60	
	Power consumption		VA	200	
	Dimensions (Width x Depth x Height)		mm	448x435x135	
	Weight		kg	10	

*All specifications are quoted after 1 hour warm-up period.

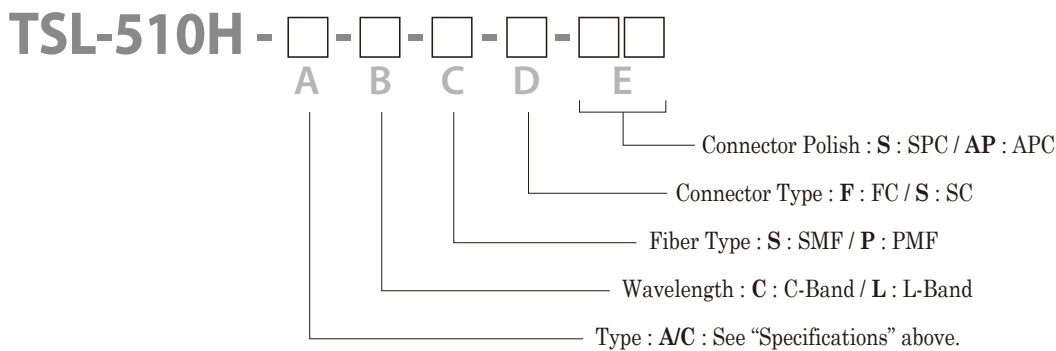
*1:For period of 1 hour. Within ±0.5°C.

*2:Ratio of signal power to total spontaneous emission power within ±15nm of the signal wavelength.

*3:Ratio of signal power to maximum spontaneous emission power in a 1nm band within a ±3nm band around the signal wavelength.

*4:Temperature within 25°C±1°C. For operating temperature is <±100pm.

■ Ordering Code



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