

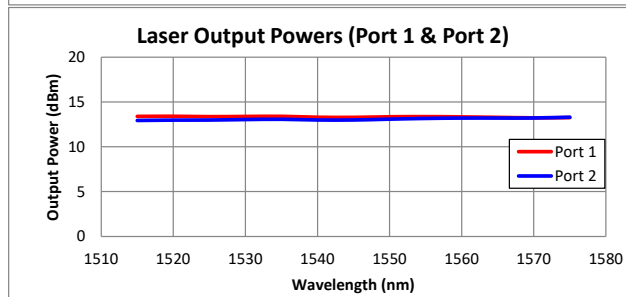
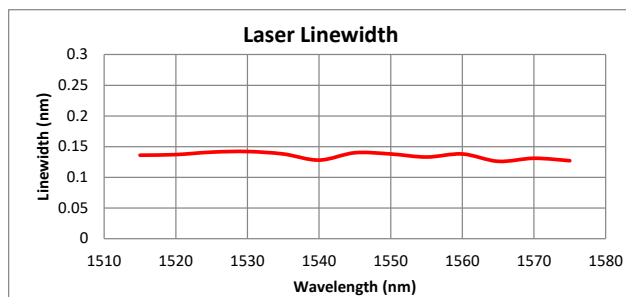
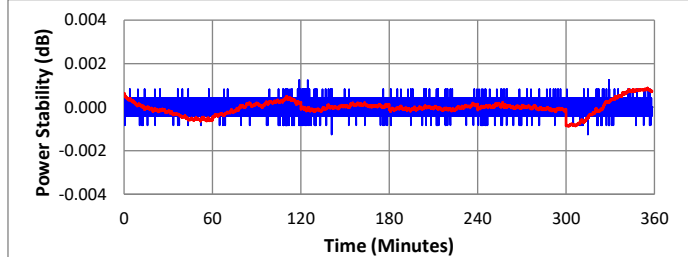
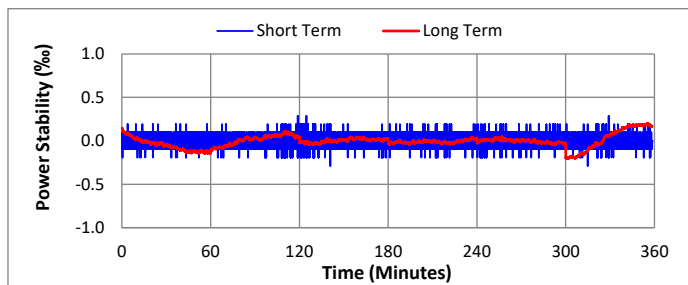
## Tunable Light Sources (Type B)



GouMax’s TLS-1200 tunable lasers are new-generation high performance continuous wave (CW) tunable laser sources for use in various single band or combined band windows, ranging from 1050 nm to 1680 nm. The innovative design employs the state-of-the-art tunable technology and gain continuation in wide wavelength range. With no moving parts, the voltage-controlled wavelength tuning enables rapid wavelength switching over the whole operating wavelength window.

This datasheet describes and defines GouMax’s low coherent (Type B: wide linewidth) CW tunable light sources with applications to monitoring, as well as test and measurement. They provide high power stability, high power output, fast wavelength tuning, and high signal-to-ASE ratio. GouMax tunable laser products support O-band, E-band, S-band, C-band, L-band, and other single-band operation, combined adjacent bands as well as Full-band (1250~1650 nm).

System control and communication is provided though the RS232 interface, which allows users to dynamically set operating wavelength with ease.



## Low Coherent O/E/S/C/LU-Band Tunable Light Sources

### Key Features

- Power stability: 0.004 dB
- High-speed scan: up to 800 nm/s
- Signal to source ASE ratio: > 70 dB
- De-coherence light sources

### Key Applications

- Long-term process diagnosis
- Optical coating monitoring
- Dynamic alignment optimization
- Testing and measurements

### Product Specifications and Key Parameters

Parameters		Unit	O-Band	E-Band	S-band	C-band	LU-band
Wavelength Range <sup>1)</sup>	Lower limit	nm	1250	1350	1450	1520	1580
	Upper limit	nm	1350	1450	1530	1580	1650
Minimum (Total) Output Power		dBm	≥ 10	≥ 9	≥ 7	≥ 10	≥ 10
Power Stability <sup>2), 3)</sup>		dB	± 0.004				
Power Repeatability <sup>3), 4)</sup>		dB	± 0.01				
Wavelength Accuracy <sup>2), 3)</sup>		pm	± 10				
Wavelength Repeatability <sup>3), 4)</sup>		pm	± 3				
Wavelength Stability <sup>2), 3)</sup>		pm	≤ 5				
Wavelength Tuning Resolution		pm	≤ 1				
Linewidth (FWHM)		nm	0.1 ~ 0.3				
Signal to Source ASE Ratio <sup>5)</sup>		dB	≥ 70				
Maximum Sweep Speed <sup>6)</sup>		nm/s	400				
Step Tuning Time		ms	50				
Operation Modes		-	Manual Tuning/Continuous Sweep/Stepped Sweep				
Communication Interface		-	RS232/UART				

#### Notes:

- 1) Wavelength is calibrated as “Mean wavelength”.
- 2) When measured after warm-up time, measurements over 1 hour at 25±1°C.
- 3) For output power at > 0 dBm.
- 4) When measured after warm-up time, measurements over 100 times at 25±1°C.
- 5) ASE is measured within 0.1 nm wavelength bandwidth.
- 6) For continuous sweeping, up to 800 nm/s.