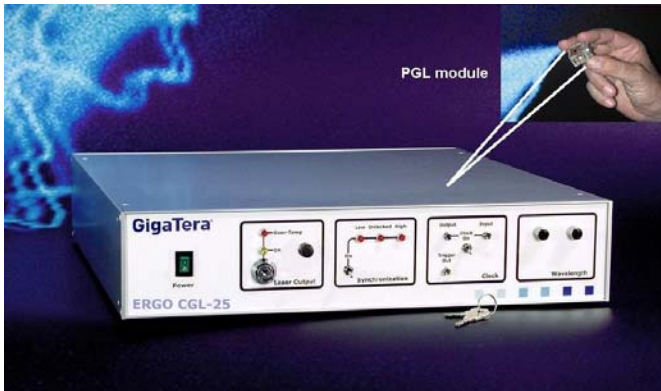


Preliminary ERGO™ CGL-25

Multi-Wavelength Laser

GigaTera



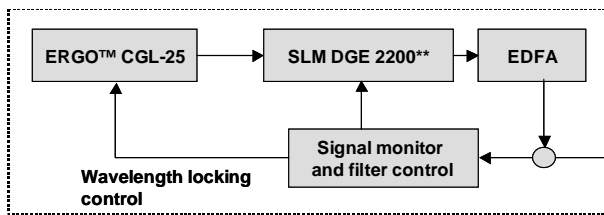
Description:

ERGO CGL-25 is a multi-wavelength laser generating a comb of discrete CW wavelengths at a spacing of 25GHz.

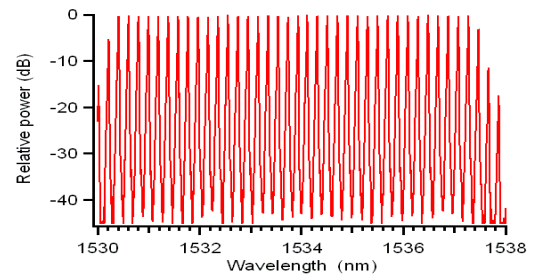
The laser produces line widths of 1 MHz typical, wavelength stability of <1 GHz and optical signal to noise ratios as high as 60 dB. Channel counts range from a few to over 60 depending on the application.

ERGO CGL-25 is available in a user-friendly instrument package and is ideal for WDM and frequency metrology applications.

Multi-Wavelength System:



**SLM = Silicon Light Machines DGE = dynamic gain equalizer



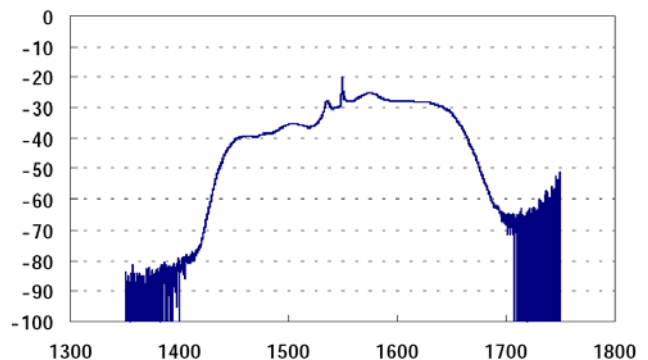
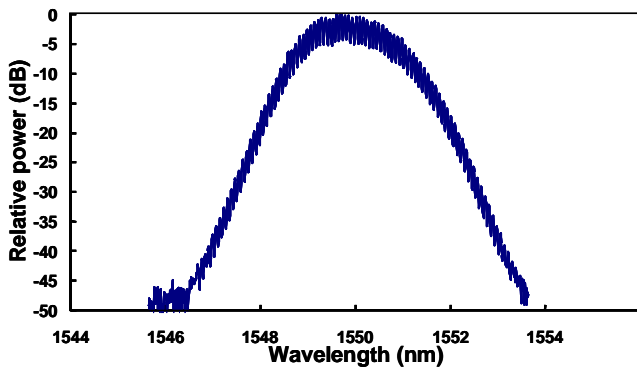
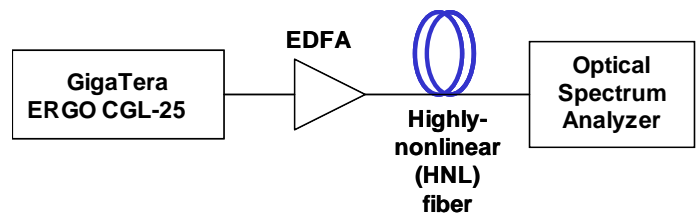
Multi-channel (multi-fiber) output to individual modulator channels

- Dynamic gain equalizer for flattening & filtering spectrum
- EDFA for amplification of channel power
- Filter and control function for optimization & locking

- 32 channels at 25 GHz spacings locked to ITU grid
- Channel powers as high as 10 dBm
- OSNR of >30 dB with flatness of a few tenths of a 10dB

Supercontinuum Generation:

- ERGO CGL-25 with 25 GHz spacings
- EDFA for peak power
- Highly nonlinear fiber for supercontinuum generation



- 10 GHz laser with 3 nm FWHM
- Over 300 nm of spectrum generated
- Supercontinuum spectrum stable & lockable to an external reference

ERGO™ CGL-25

Multi-Wavelength Laser



Specifications:

Wavelength Domain:

Channel Separation	10 GHz or 25 GHz
Channel Count	4 - 64, depending on signal to noise requirements
Optical signal to noise ratio	60 dB max in center of band, minimum dependent on channel count & application
Linewidth	1 MHz typical
Wavelength stability	< 1GHz with wavelength locker
Channel Power	μW range without amplification, 10 mW range with an EDFA
Center Wavelength	1535 nm typical
Wavelength Options	Settable in C-Band 1535 - 1560 nm, Tunable in C-Band
Spectral Bandwidth	3 nm FWHM typical
Amplitude Stability	< 1% rms

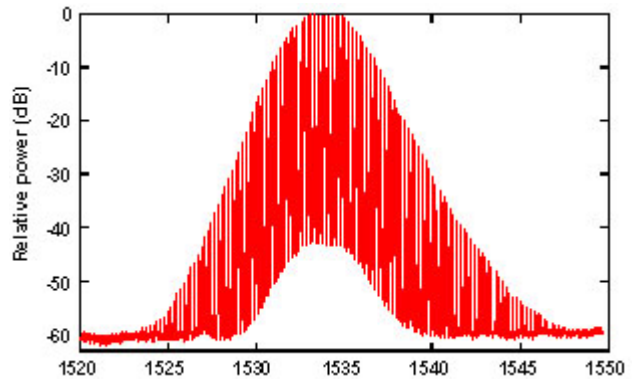
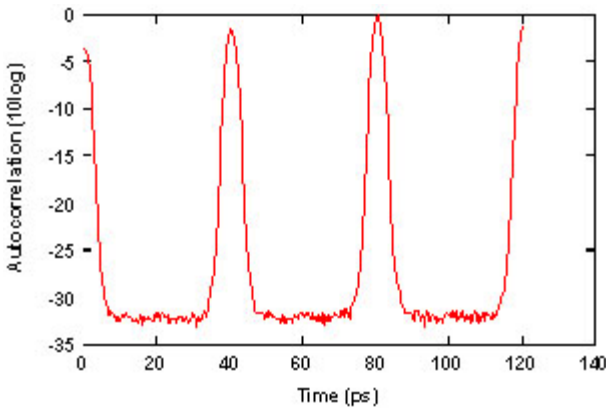
Time Domain:

Pulsewidth	3 - 4 ps typical
Average Power	10 mW
Power stability	1%

32 Channel System:

Channel Separation	25 GHz
Channel Count	32
Optical signal to noise ratio	> 30 dB
Linewidth	1 MHz typical
Wavelength stability	< 1GHz
Channel Power	5-10 mW with EDFA

Performance:



- 10 GHz & 25 GHz repetition frequencies
- Pulse widths of 3-5 ps, compressable to 1.5 ps
- Contrast ratio of >30 dB
- Average power of 10 dBm

- Precision wavelength spacings of 10 & 25 GHz
- Linewidths of 1 MHz
- OSNR of 60 dB in center of spectrum
- Lockable to the ITU grid