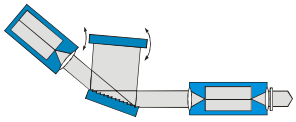
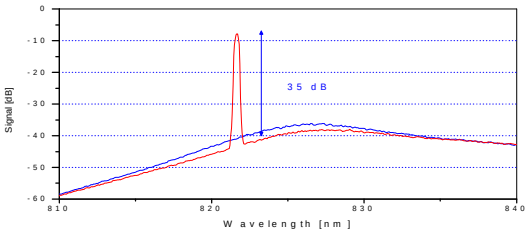
Serval Plus Series: TEC-420-850-500



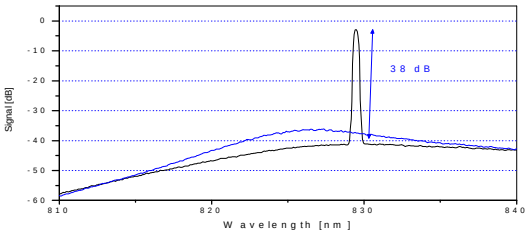
Description:
The TEC-420-850-500 Amplified Littman / Metcalf System is designed for application which require best mode-hop free tuning behaviour together with high output power up to 500mW. It consists of a Littman / Metcalf master laser, a decoupling 60dB Isolator, a tapered amplifier diode and protective final 35dB isolator.

The red curves show the spectrum of the TEC-420 without Master laser, the black curves the behaviour of the TEC-420 with the Littman / Metcalf Master laser, operated at 15mW.



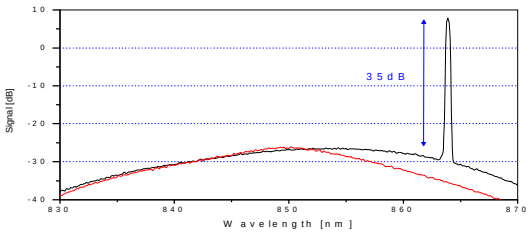
Wavelength
Lower Border of the Tuning Range of the Master Laser

Wavelength: 821nm
Power: 400mW



Wavelength
Gain Maximum

Wavelength: 830nm
Power: 870mW



Wavelength
Upper Border of the Tuning Range of the Master Laser

Wavelength: 852nm
Power: 500mW

Specification:

output power	>500mW, typ. >550mW at gain maximum
beam profile	elliptic, typ. ratio = 1:2
mode profile	$M^2 < 1.7$
beam divergence	< 2 mrad
polarization	linearly, typ. > 100:1
linewidth (50ms)	< 1MHz, typ. < 0.5MHz
linewidth (20s)	< 5MHz, typ. < 2MHz
side mode suppression	> 40dB, typ. > 45dB
coarse tuning range	> 15nm
fine tuning range (total)	> 0.5nm = 200GHz
fine tuning range (modehop free)	> 15-30GHz, typ. > 50GHz
frequency modulation (@ 10 GHz amplitude)	> 0.5kHz
long term drift (24 h)	typ. 300MHz

Document: http://data.sacher-laser.com/TALittman/TAL08500500.pdf
Note: Specification are subject to change without further notice .

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