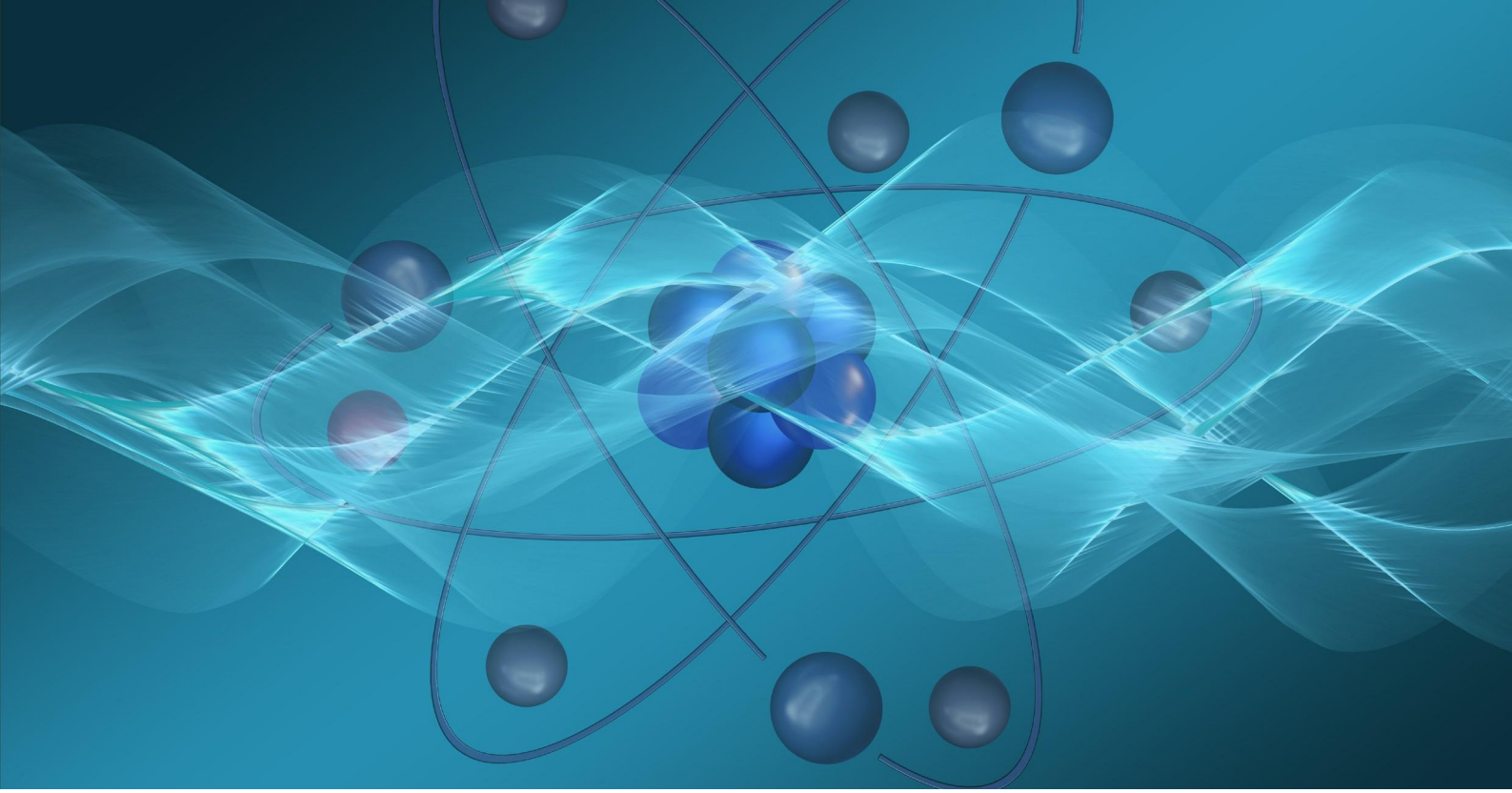

Saturation Absorption Frequency Stabilization Module

Precilasers has launched an integrated laser frequency stabilization controller for portable systems. The integrated controller integrates a frequency stabilization optical path and a locking controller. Users only need to input the laser to be stabilized through an optical fiber jumper to achieve laser frequency stabilization. The frequency stabilization controller has an integrated optical path module, which ensures the full fiber connection of the optical path. The integrated optical path module can be used to generate spectral lines such as saturation absorption spectrum or modulation transfer spectrum. Depending on the different atomic absorption cells in the optical path, the module can be used for frequency stabilization different wavelength lasers.

Features

- High Frequency Stability
- Portable
- All-fiber Frequency-Stabilized Optical Path

Applications

- Optical Precision Measurement
- Quantum Computing
- Quantum Precision Measurement

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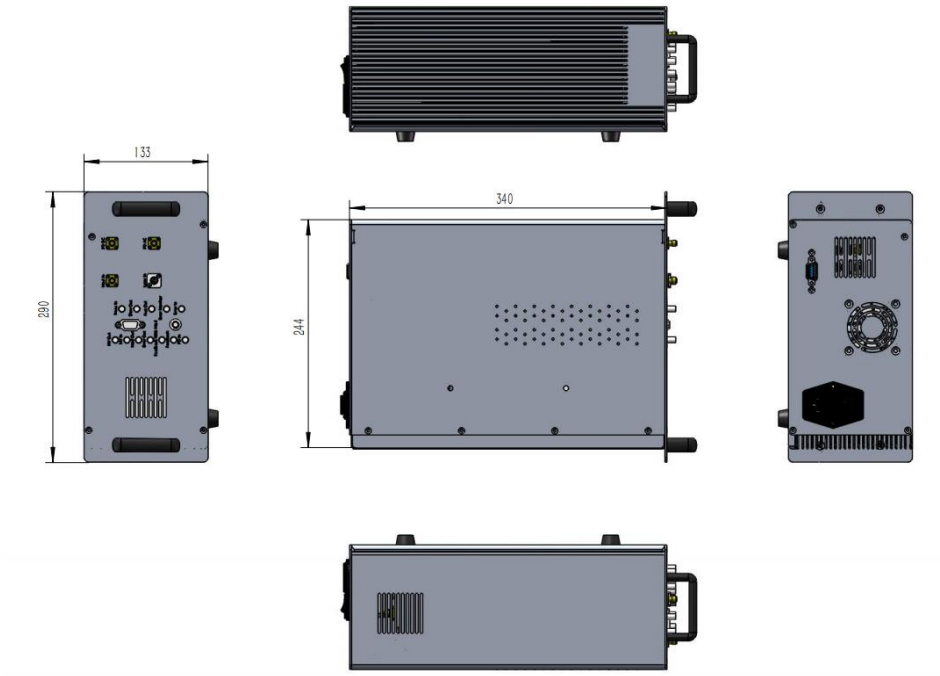
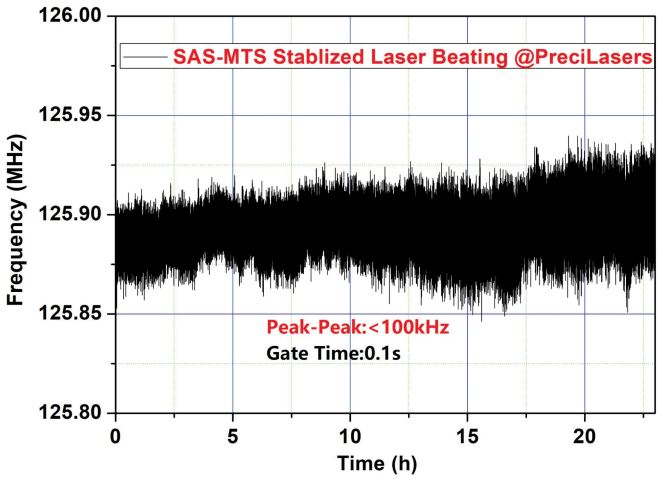
Specification		
Partnumber	Preci-SAS-Rb	Preci-SAS-Cs
Spectral Line Generation Method	Saturation absorption spectrum	
Modulation Frequency	10kHz-100kHz & 2-30MHzDigitally adjustable	
De-modulation Phase	0-360°Digitally adjustable	
Error Signal Amplitude	> 200mVpp	
Optical Packing	All-fiber structure	
Spectrum Generation	Built-in Rb Cell	Built-in Cs Cell
Input	Single-mode polarization-maintaining fiber input, FC/APC connector	
Operation Mode	3mW 780nmInput, feedback control signal output	3mW 852nm input, feedback control signal output
Configuration	Include PD, Rb/Cs bulb, modulation and demodulation circuit	
Locking Accuracy	<±150kHz@24h	

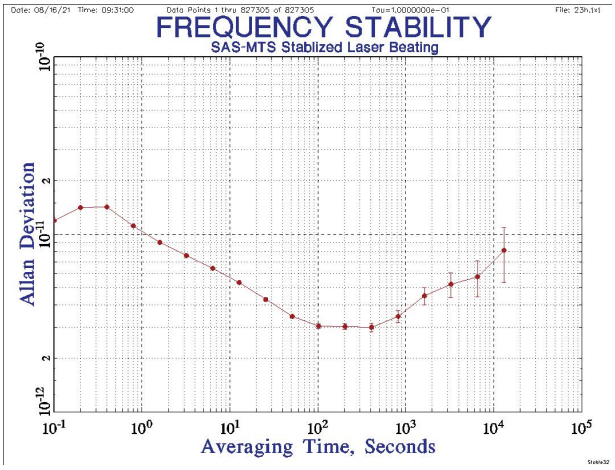
❖ Product Dimensions



❖ Performance(typical value)



Frequency stability test



Frequency stability testFrequency drift test

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⚠ Laser Hazard

Visible or invisible laser radiation, avoid eye or skin exposure to direct, reflected or filtered radiation.

CLASS 4 Laser Products