



Laser Locking Controller: Preci-Beat



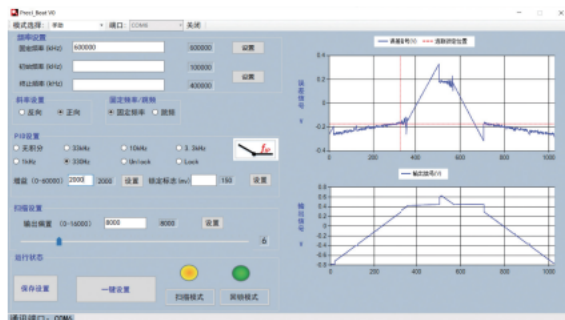
The product description

Preci-Beat, a locking controller developed by Erbium group, can be used in laser heterodyne frequency locking/phase locking. Preci-beat is integrated with frequency and phase detection module and PID module. Preci-beat has the functions of the digital frequency and phase detection and PID servo. It can achieve laser heterodyne beat frequency/phase locking in the range of 50 MHz-8 GHz. Similar with Preci-Lock, Preci-Beat also has no physical knobs and buttons, and is controlled by PC software. Preci-Beat software includes the functions of port control, error and output signal display, PID parameter adjustment and lock control. Preci-Beat software communicate with the controller through RS422 protocol.

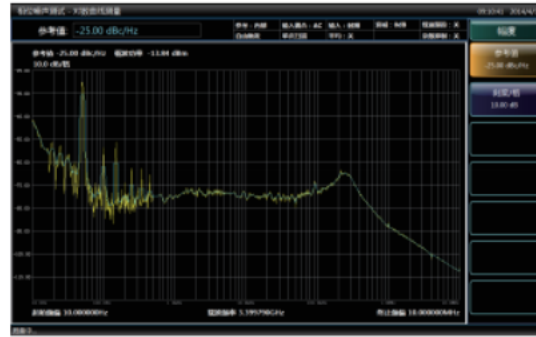
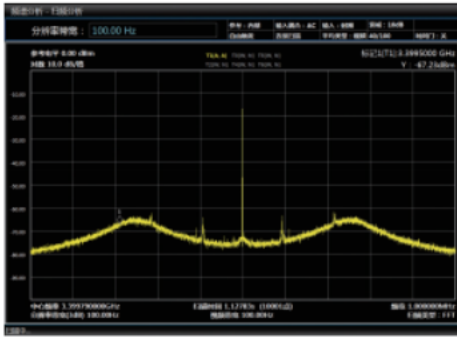
Technical indicators

Parameters	Indexes
Locked frequency difference	50 MHz-8 GHz
Frequency-regulated resolution	1kHz
Frequency hopping	Support
Reference input frequency	100 MHz
Internal reference, external reference	Support
Automatic lockout	Support
PID output voltage range	-5 v -5 v
PID series	2

software



Preci-Beat software interface



Phase-locking results of 3.4 GHz beat frequency for 1560nm laser. beat signal (left) and beat signal phase noise (right)