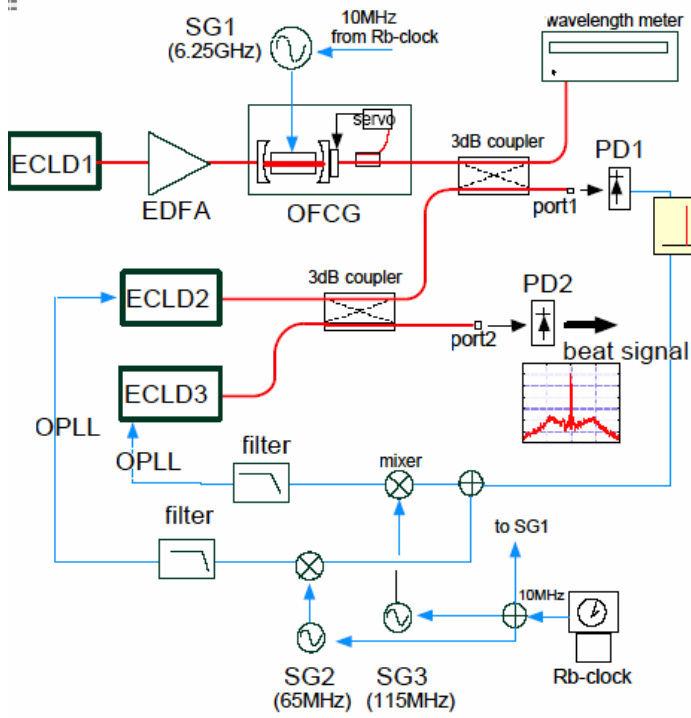


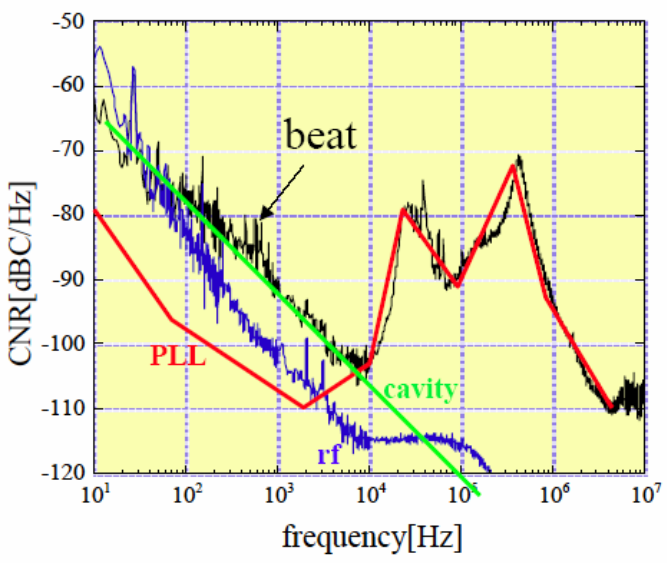
Experimental set-up



- Light source
 - External-cavity laser diode (ECLD)
 - $P_{max} = 10mW$ $\Delta l = 100 kHz$
- PLL
 - Servo bandwidth 600 kHz
- fast PD
 - Uni-travelling-carrier PD(UTC-PD)
 - Bandwidth 500 GHz
 - developed by NTT Photonics Lab.

Phase noise

Phase noise spectrum (6.25GHz)



- Noise source ●
- Residual phase noise form PLL-servo (constant)
- Optical freq. comb generator (proportional to beat freq.)
- rf reference (for OCG)
- Cavity fluctuation

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