

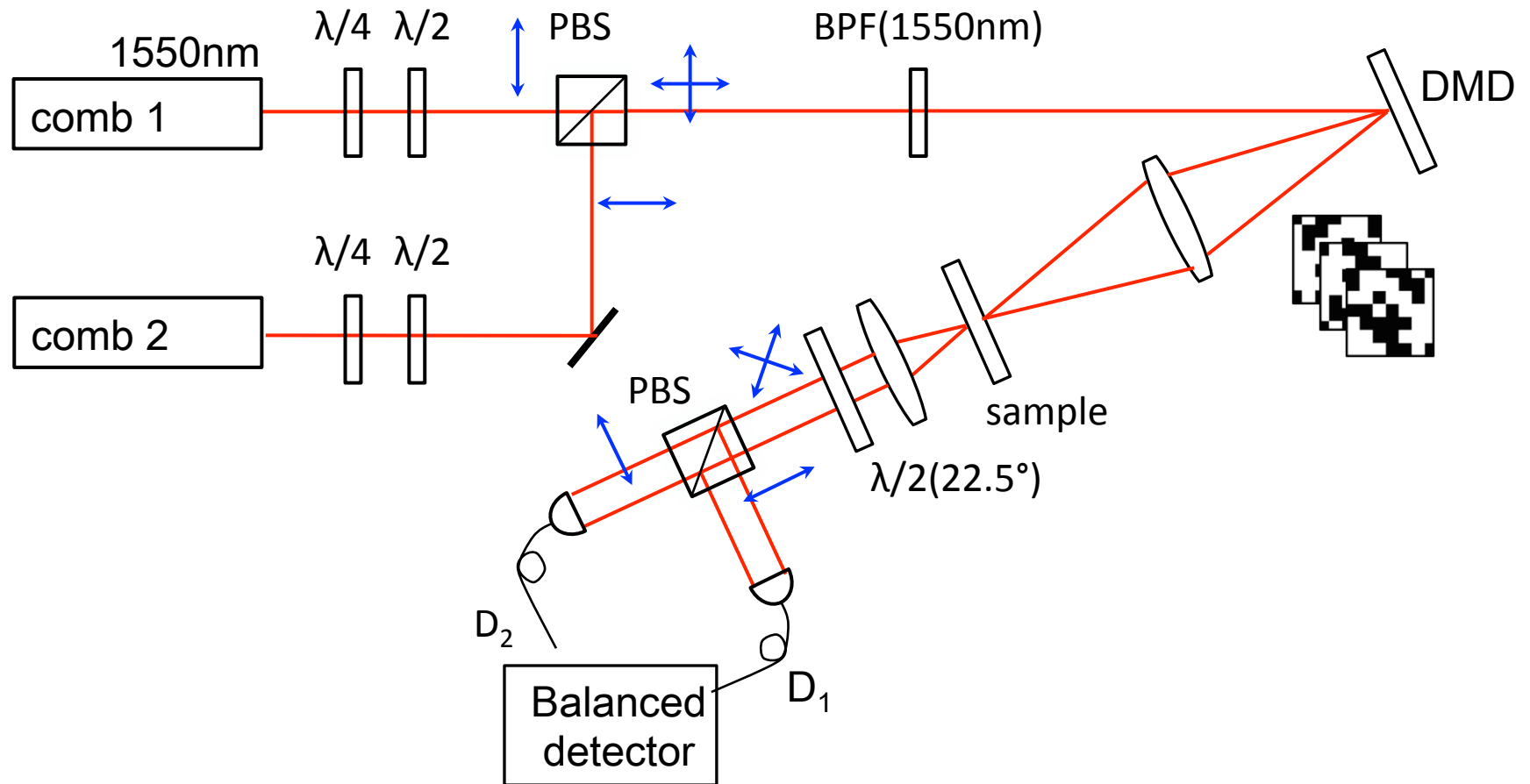
デュアル光コム分光single-pixel imaging

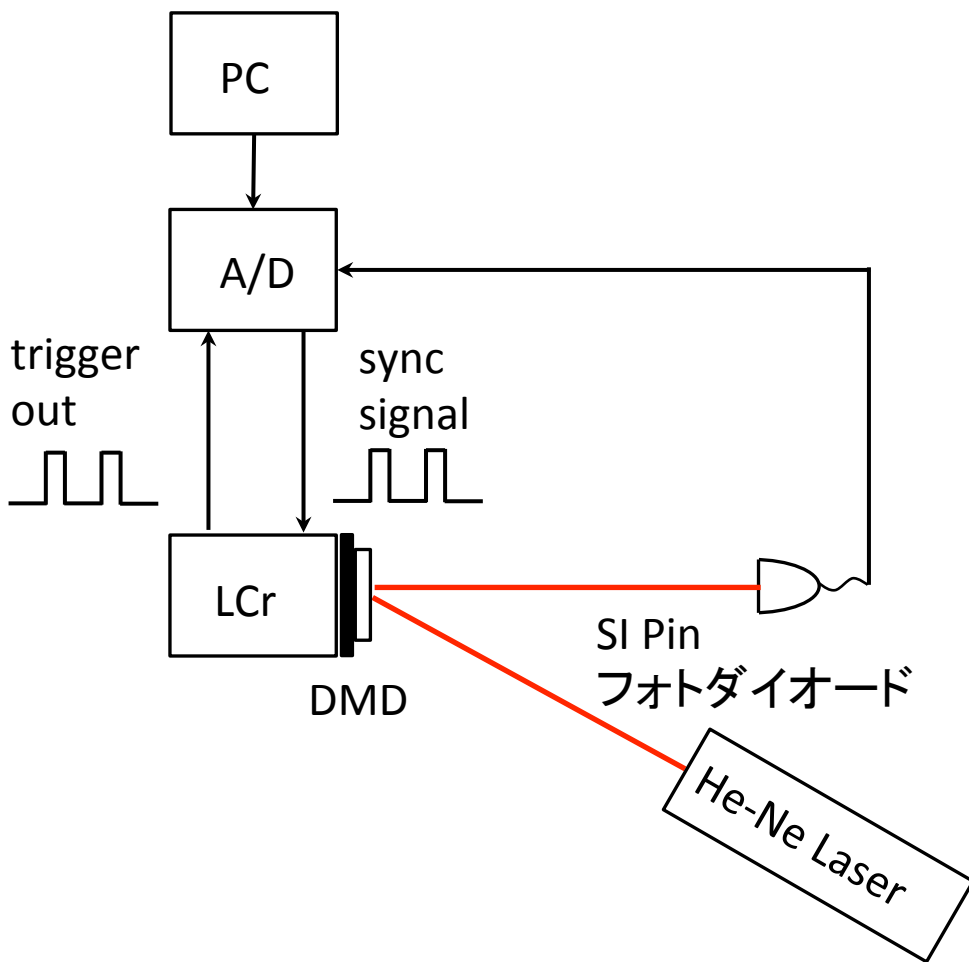
現状報告

光応用計測研究室

渋谷 九輝

デュアル光コム分光single-pixel imaging

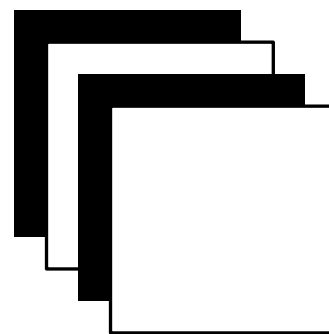




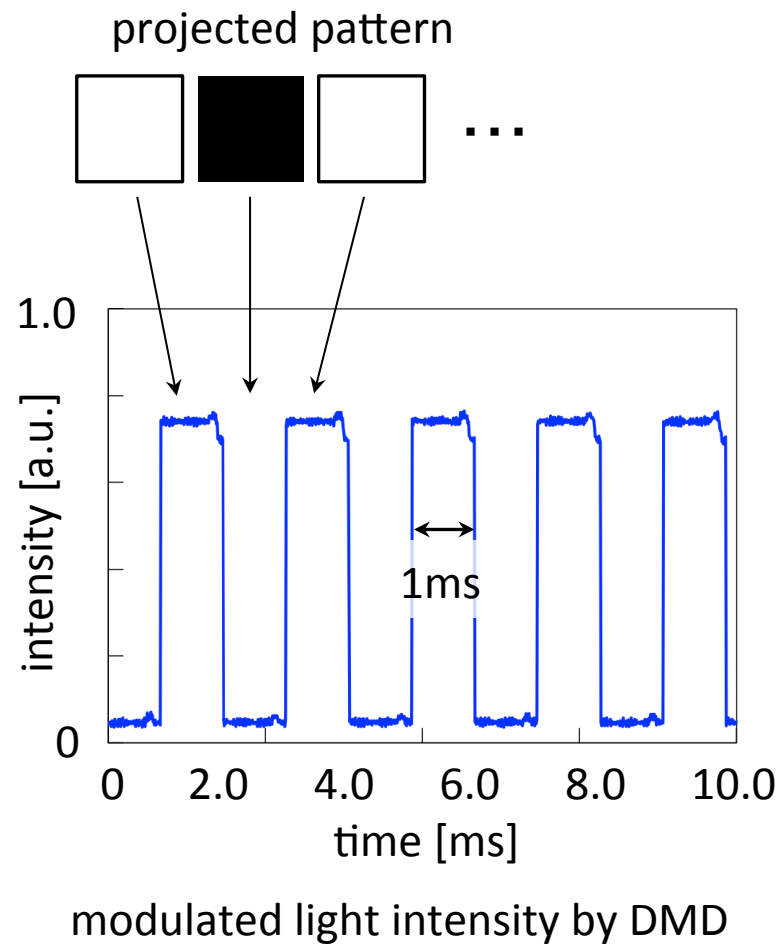
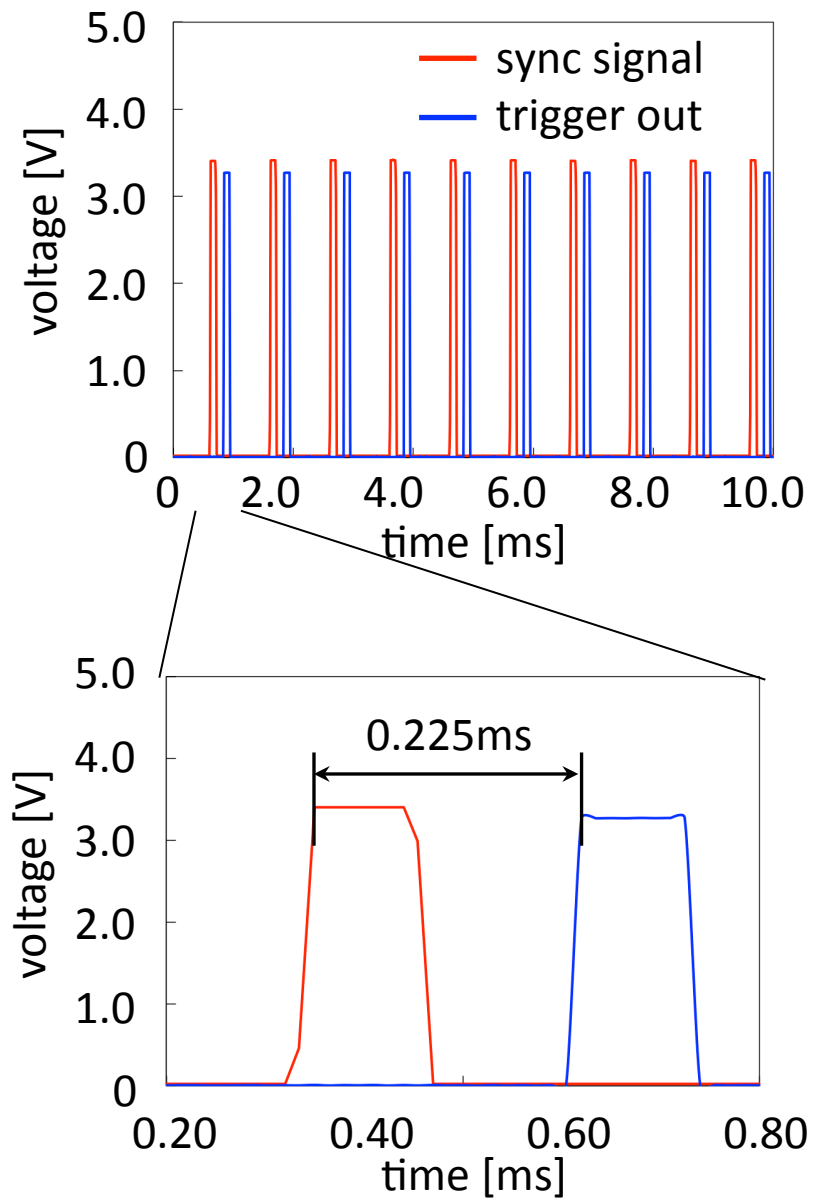
experimental condition

reference signal [Hz]	1,000, 4,000(max)
sampling rate [kS/s]	80
resolution of A/D [bit]	16
pattern resolution [pixels]	608x684

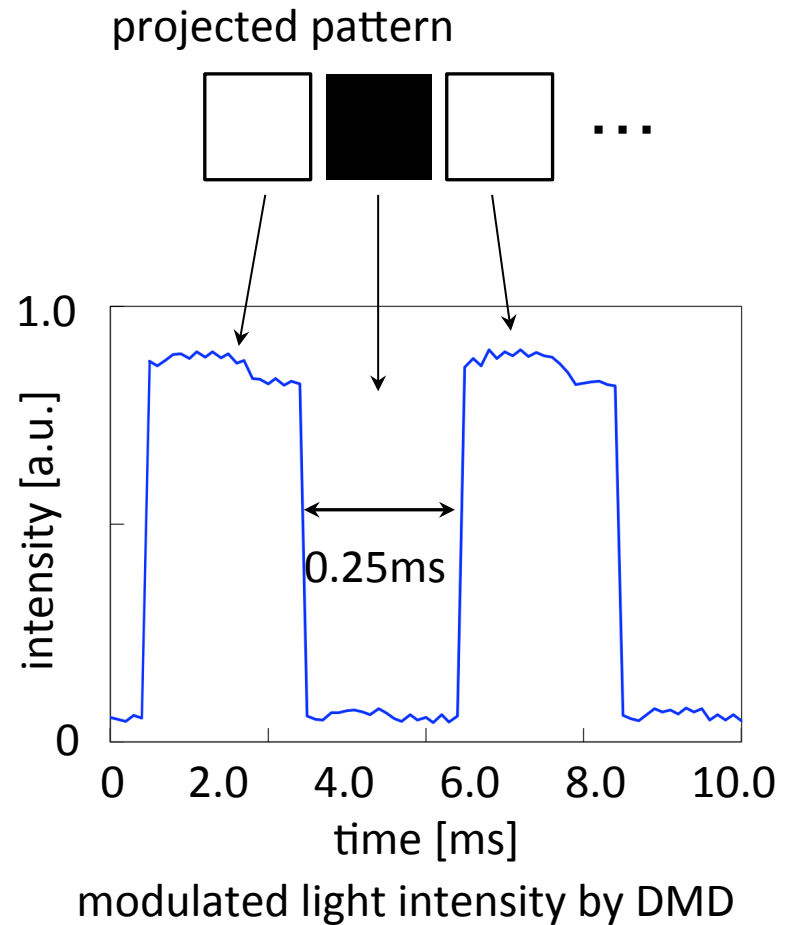
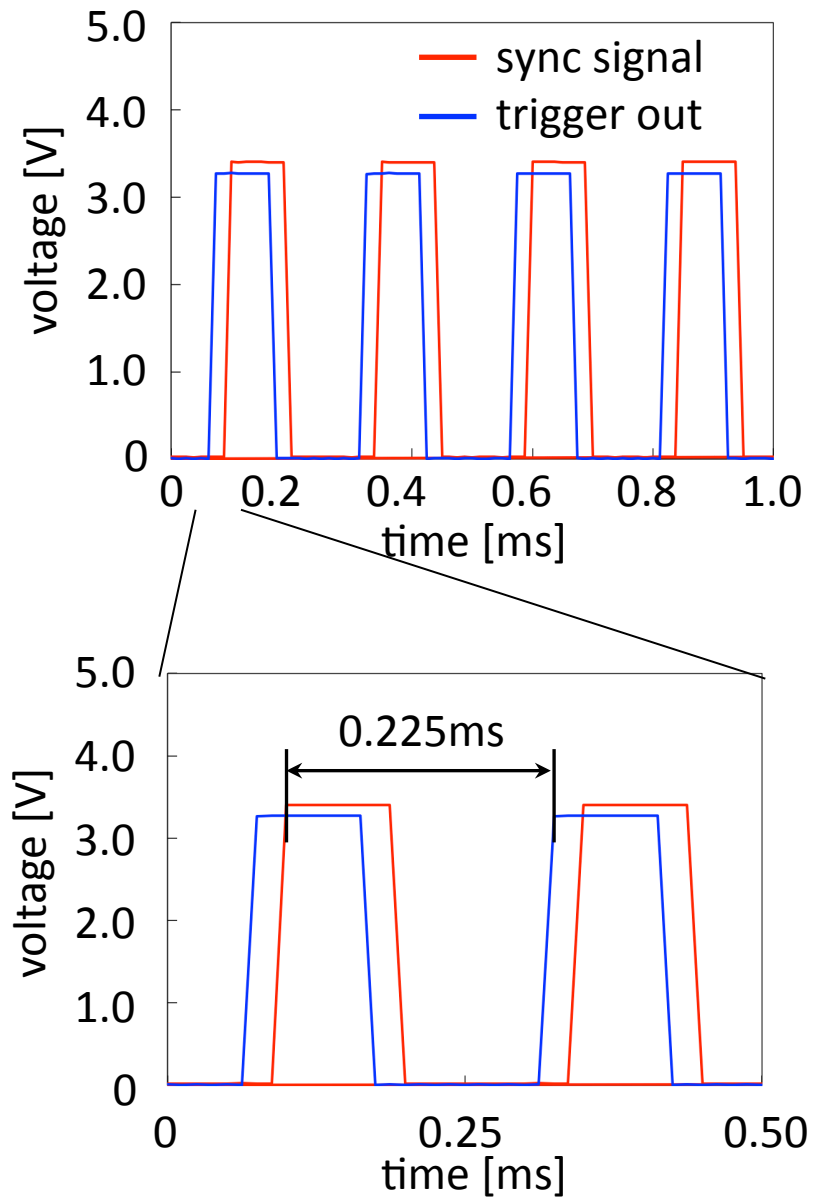
pattern



測定結果 (sync signal: 1,000Hz)

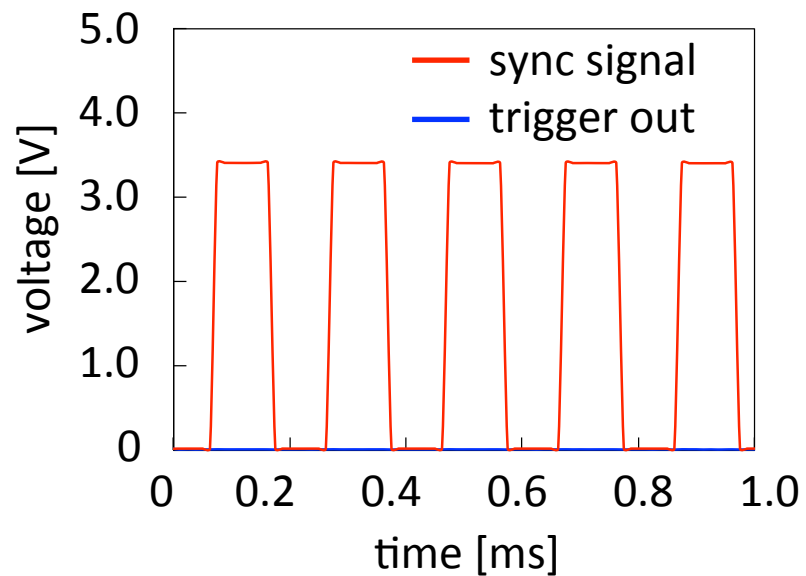


測定結果 (sync signal: 4,000Hz)

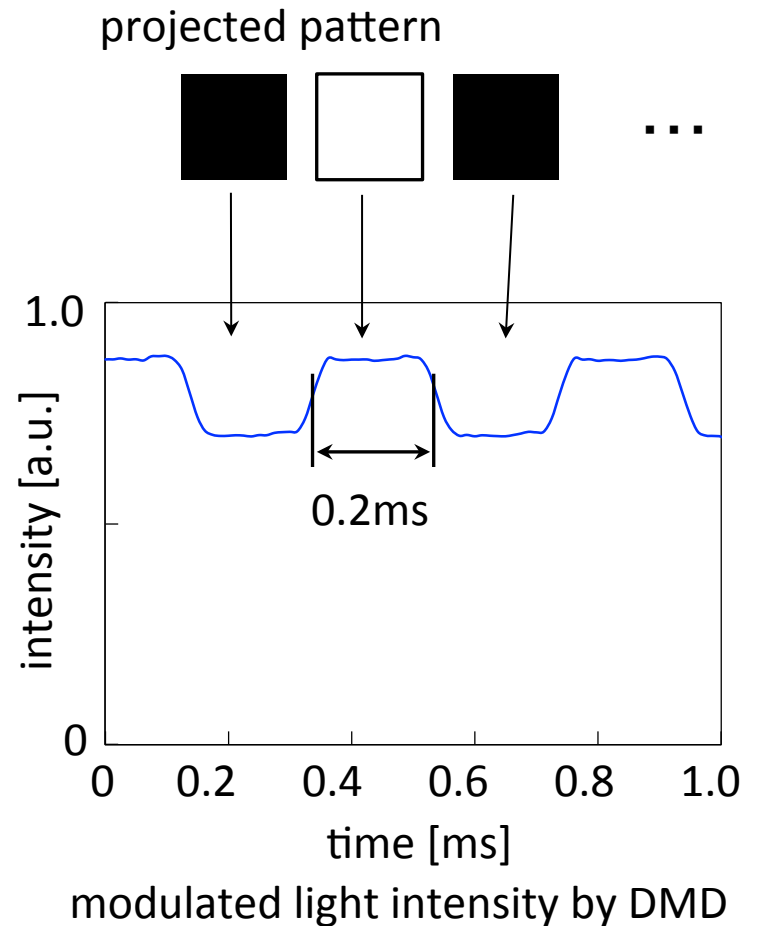


4000Hzでの動作を確認

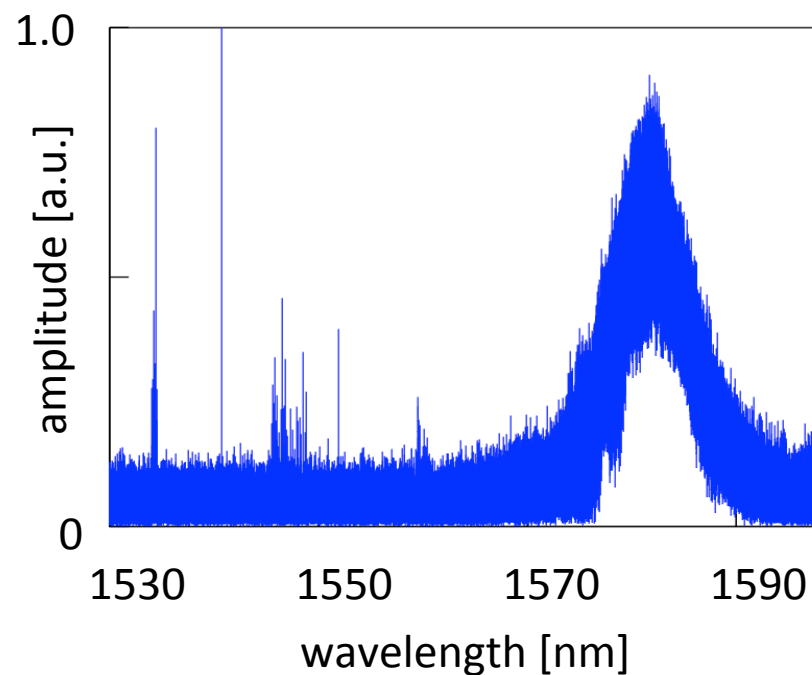
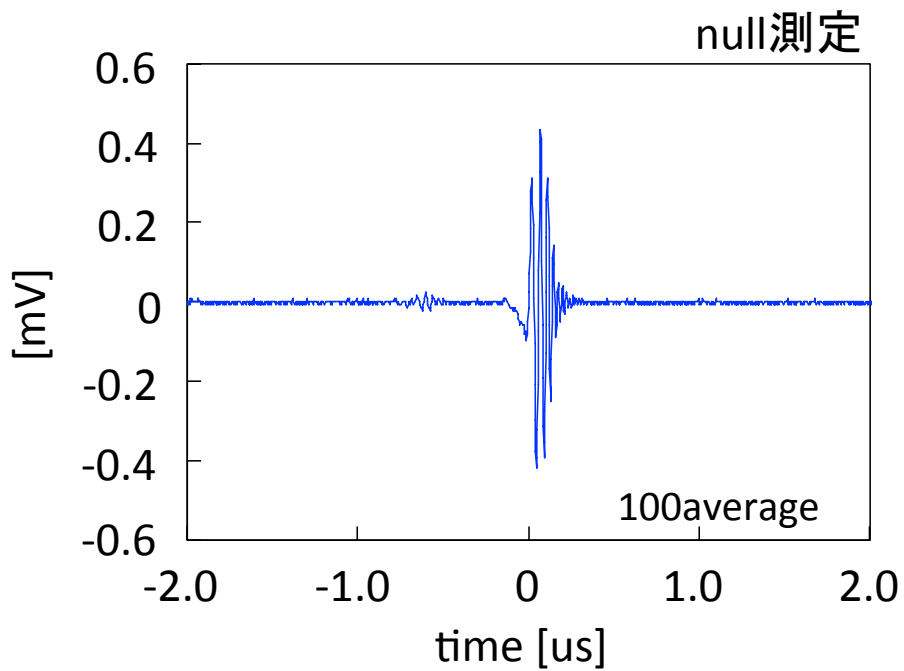
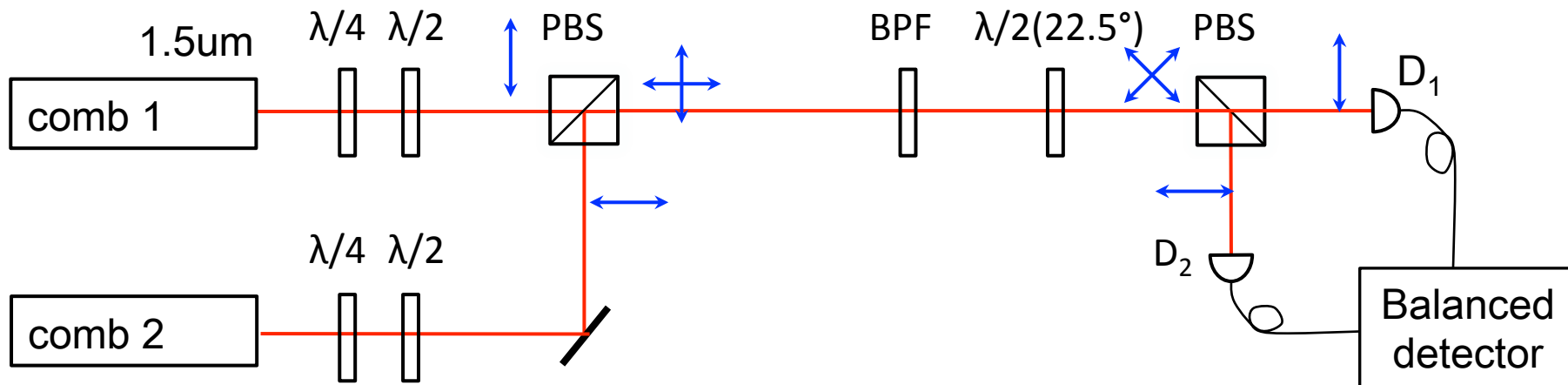
測定結果 (sync signal: 5,000Hz)



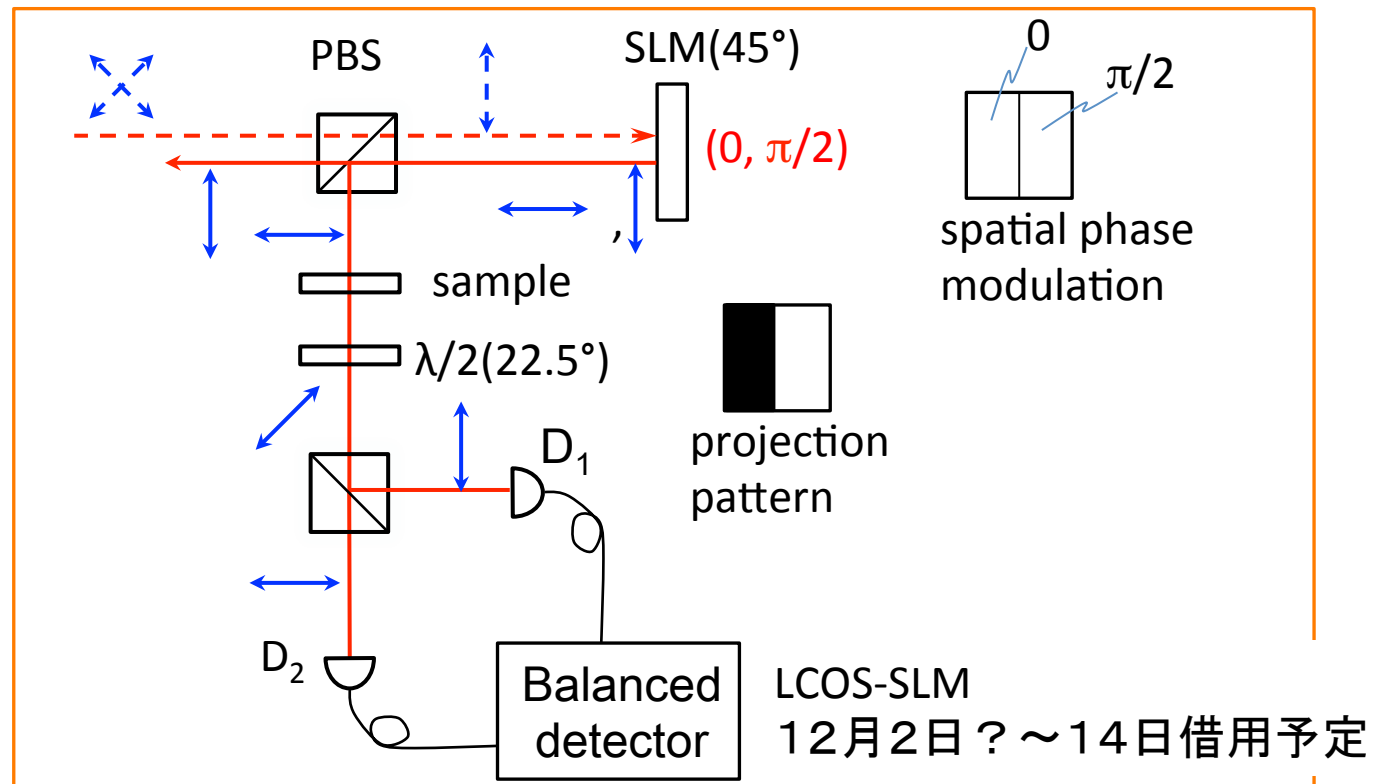
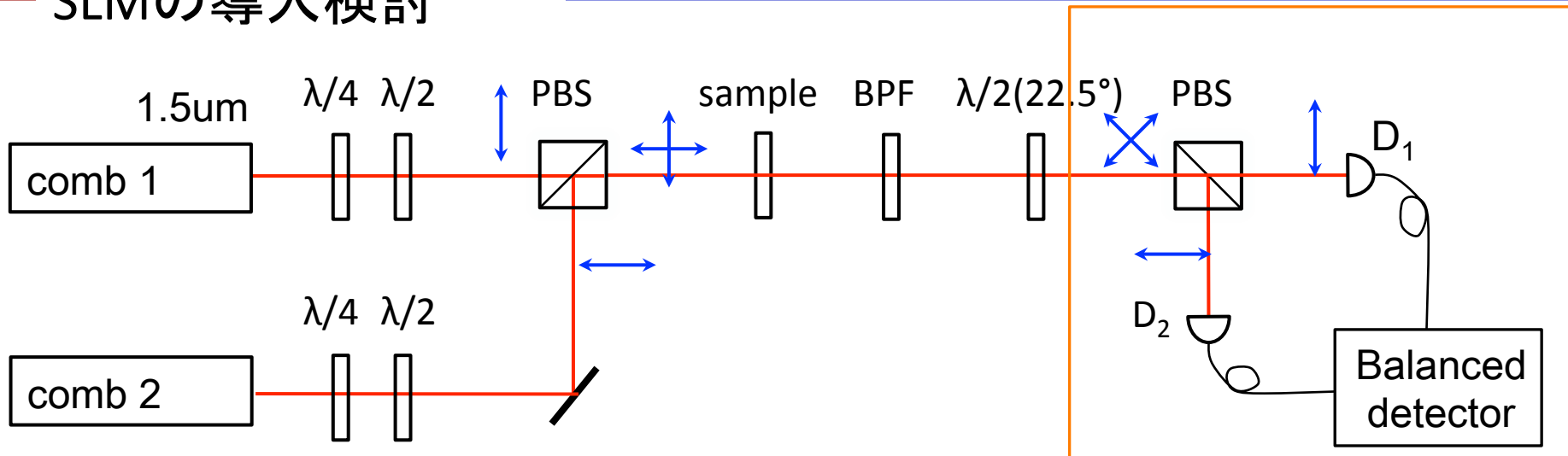
trigger out 検出されず



デュアルコム分光システム動作確認



SLMの導入検討



まとめ

- Labviewを用いたLightcrafterの制御・動作確認
定格最大駆動周波数(4,000Hz)での動作を確認
- デュアル光コム分光光学系の移設・動作確認
- SLMの導入検討

今後の予定

- デュアル光コム分光SPIシステムの構築, 評価
- SLMによる空間光強度変調の評価