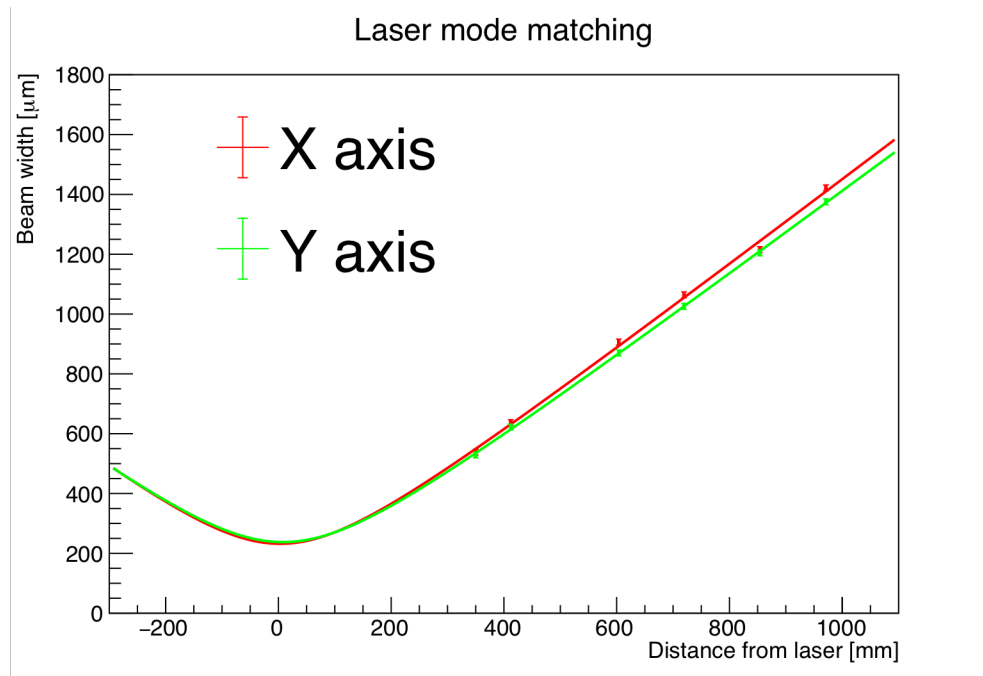


Summary of early characterization of X-end Pcal

Chihiro Kozakai

Optics

- Laser profile (error is preliminary.)
 - Width: X 232 \pm 3, Y 238 \pm 3 μm
 - Waist place: X 3 \pm 8, Y 8 \pm 9 mm
- Smaller than KEK result, width=245 μm . Under studying.



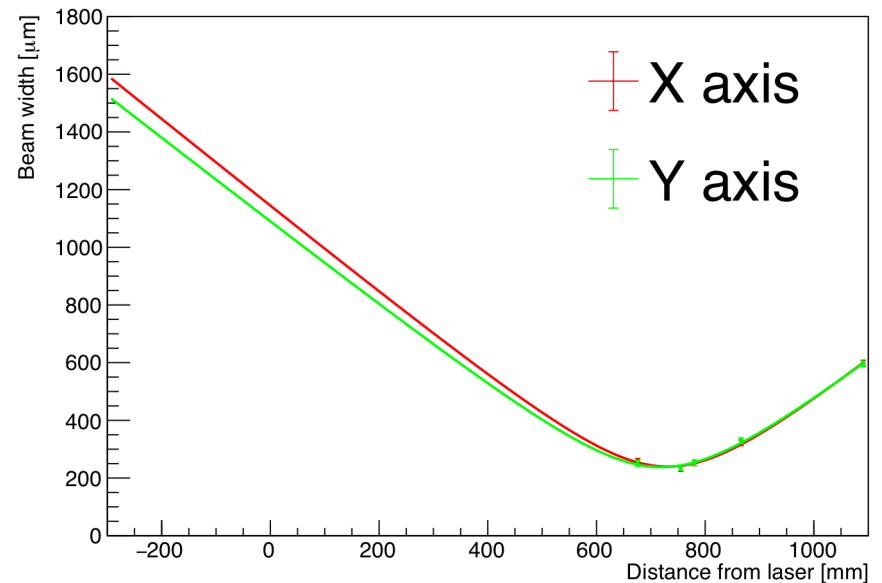
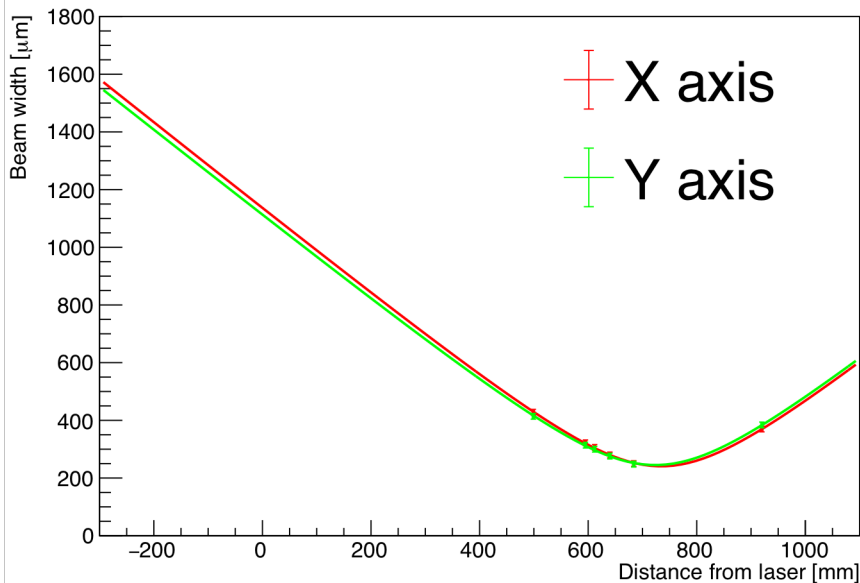
AOM mode matching

- Mode matching for AOM is ongoing. Too small now.

	Path1 X	Path1 Y	Path2 X	Path2 Y
Width	240 +- 9	245 +- 8	239 +- 6	238 +- 6
Waist place [mm]	735 +- 5	724 +- 5	731 +- 11	720 +- 12
M ²	1.09 +- 0.03	1.10 +-0.03	1.10 +- 0.05	1.05 +- 0.05

Laser mode matching

Laser mode matching



Electronics

- Interface boards have only one problem.
 - WS PD readout in EtherCAT shows loss of -1.4 dB.
- OFS boards have following problem.
 - Err mon. output is strange.
 - OFS PD input is strange.
 - OFS1 don't reach the highest gain.
 - The lowest and middle gain was OK.
 - Large noise when DAC cable is connected.
- The problems are to be fixed in this week.

Others

- Patlight is set at the X-end entrance.
 - Remote switch will be equipped.
- Interlock is under construction.
 - AI boards is to be processed.
- Shutters are working well.

ADC channel

- Ch00 OFSPD1
- Ch01 RxPD
- Ch02 TxPD1
- Ch03 ErrMon1
- Ch04 OFSPD2
- Ch05 LPD(2PD_RX_V)
- Ch06 TxPD1
- Ch07 ErrMon1
- Ch08 BPM1 X
- Ch09 BPM1 Y
- Ch10 BPM1 sum
- Ch11
- Ch12 BPM2 X
- Ch13 BPM2 Y
- Ch14 BPM2 sum
- Ch15
- Ch16 TxTemp
- Ch17 RxTemp
- Ch18 OscMon 1
- Ch19 OscMon 2
- Ch20 ToAOM1
- Ch21 ToAOM2

Conclusion

- X-end PCal was installed on 7/25.
- In optics, laser width is too small. It is smaller than measured in KEK. Checking beam profile now.
- In electronics, Interface board has only small problem. OFS boards have to be fixed.