Weekly Report

2019-05-20

Kim, Hanbeom

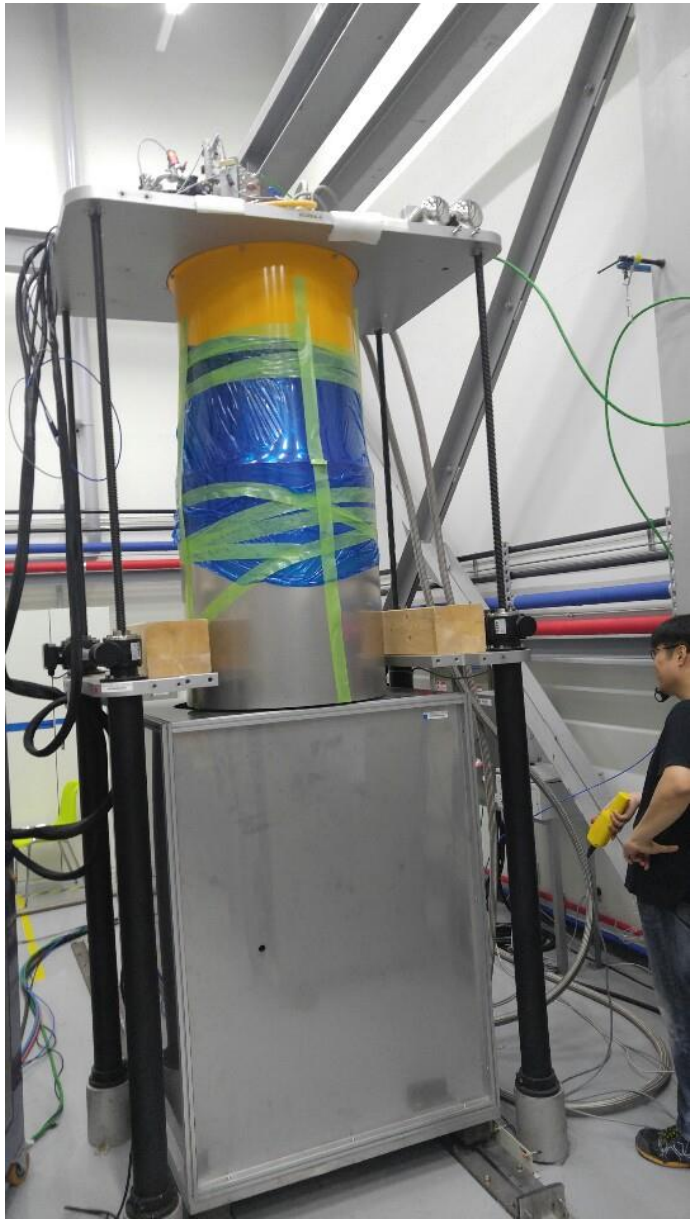
PTB SQUID test

1. PCB board making
2. Chip washing & attaching
3. Wire-bonding
4. Room temperature test
5. & 4K test – 10/10

Finished!! (190513)

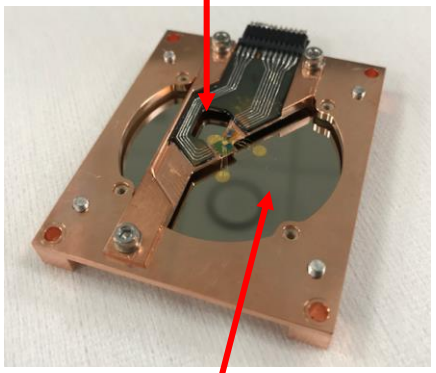
IBS refrigerator open (190517)

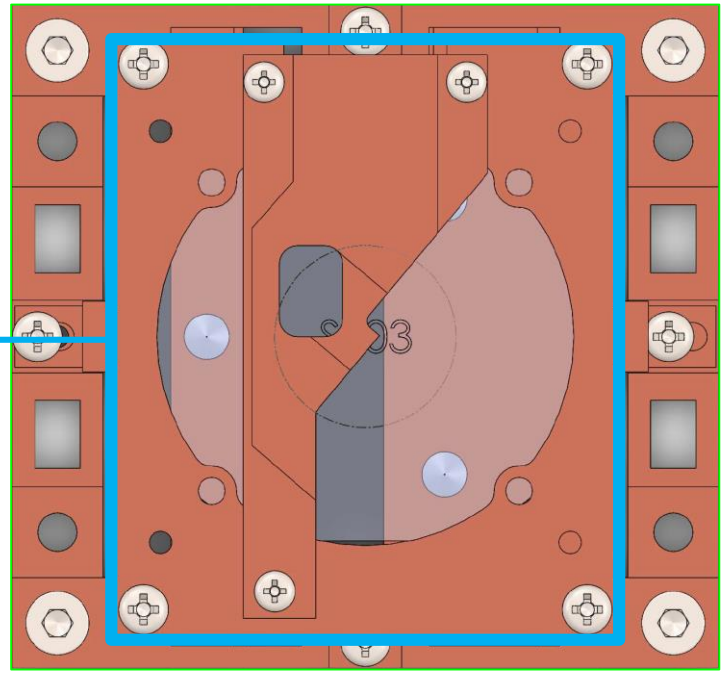
- RODY (IBS basement)
- (Currently at rest)

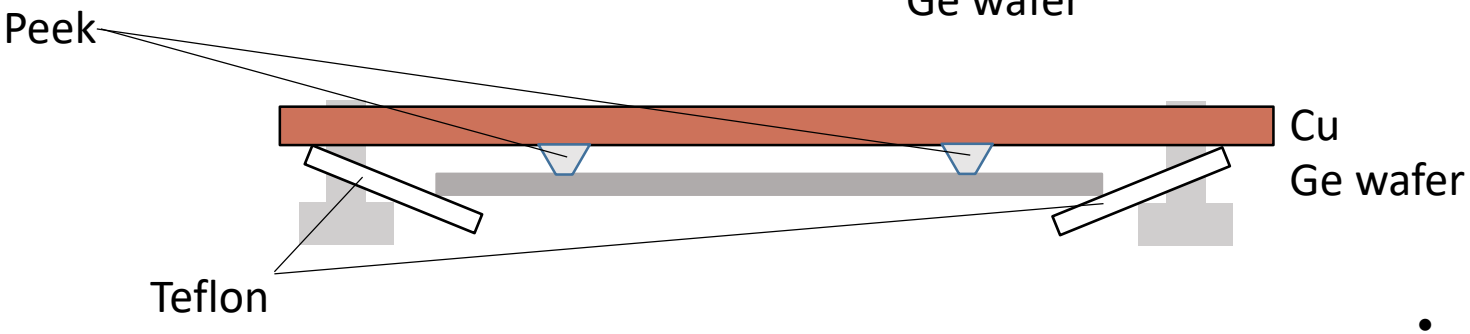


Detector Design Improvement (plan)

- Current Design of photon sensor part



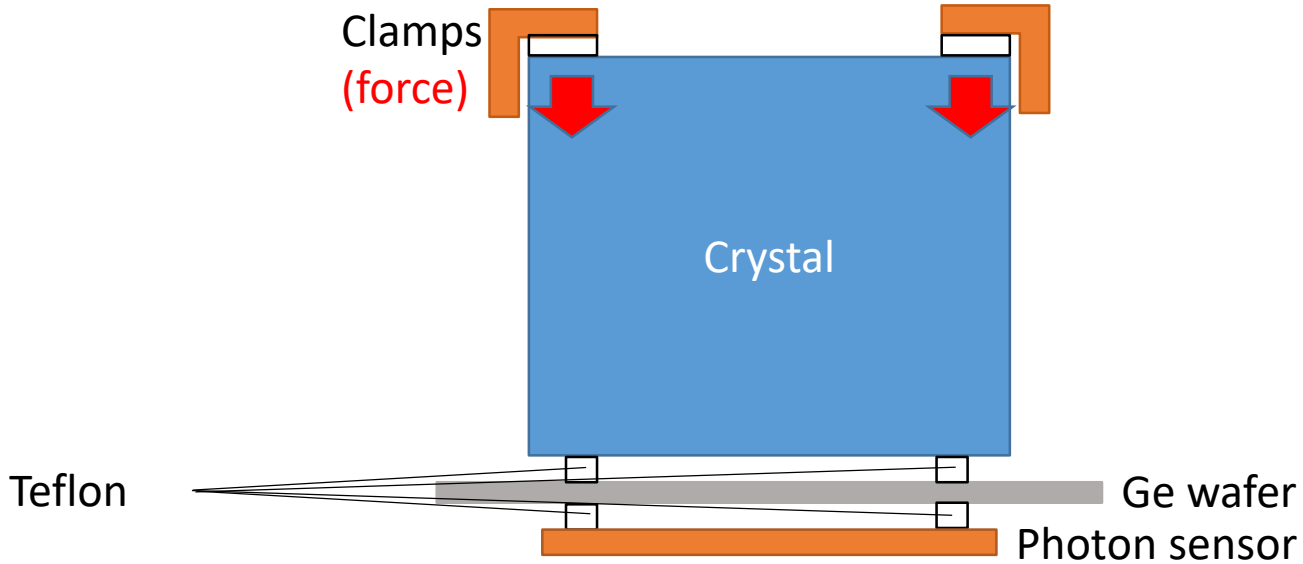


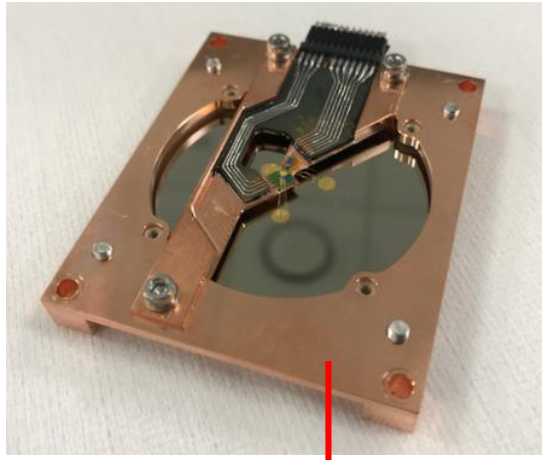


- Vulnerable to vibration

Detector Design Improvement (plan)

- New idea:

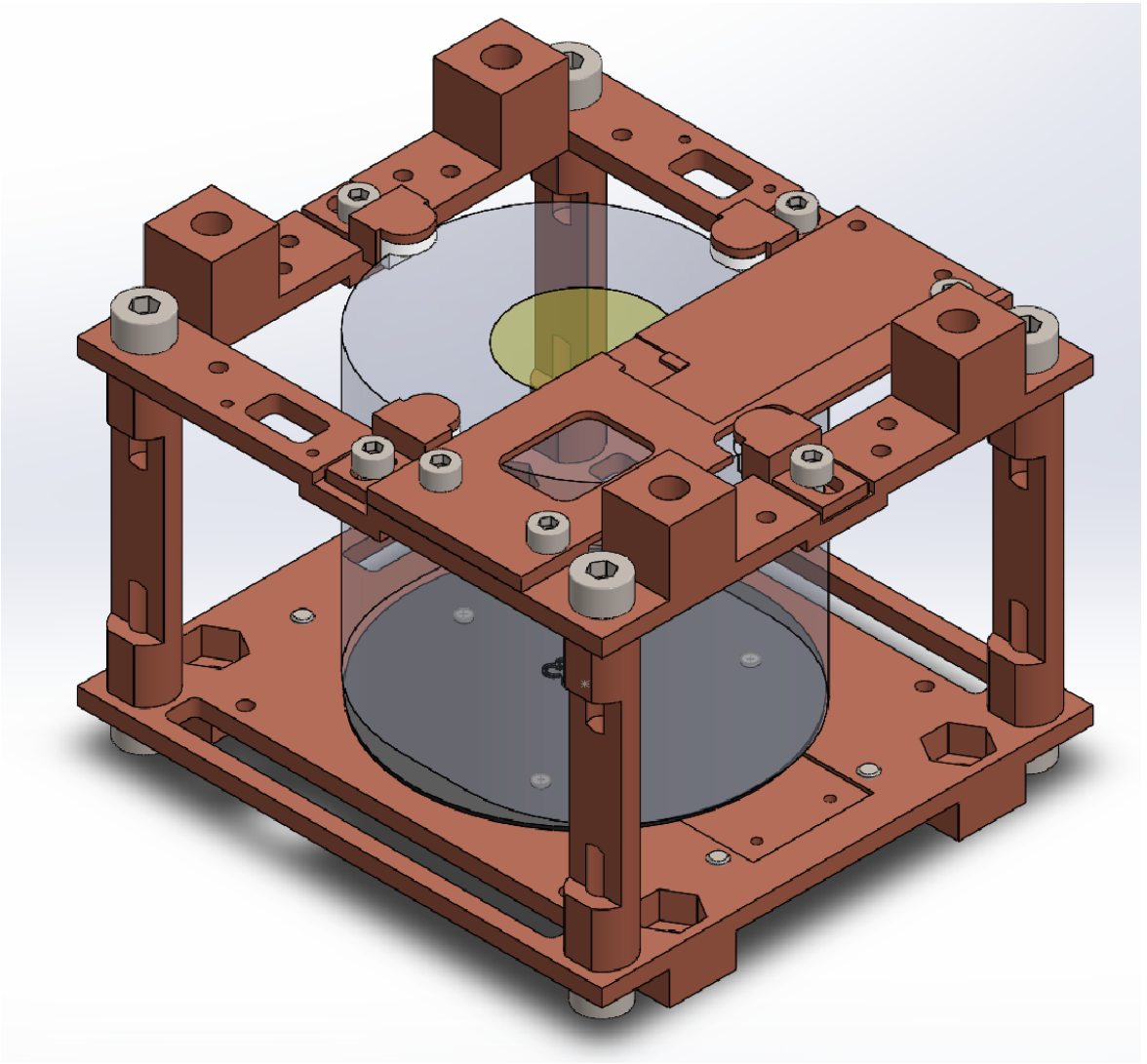


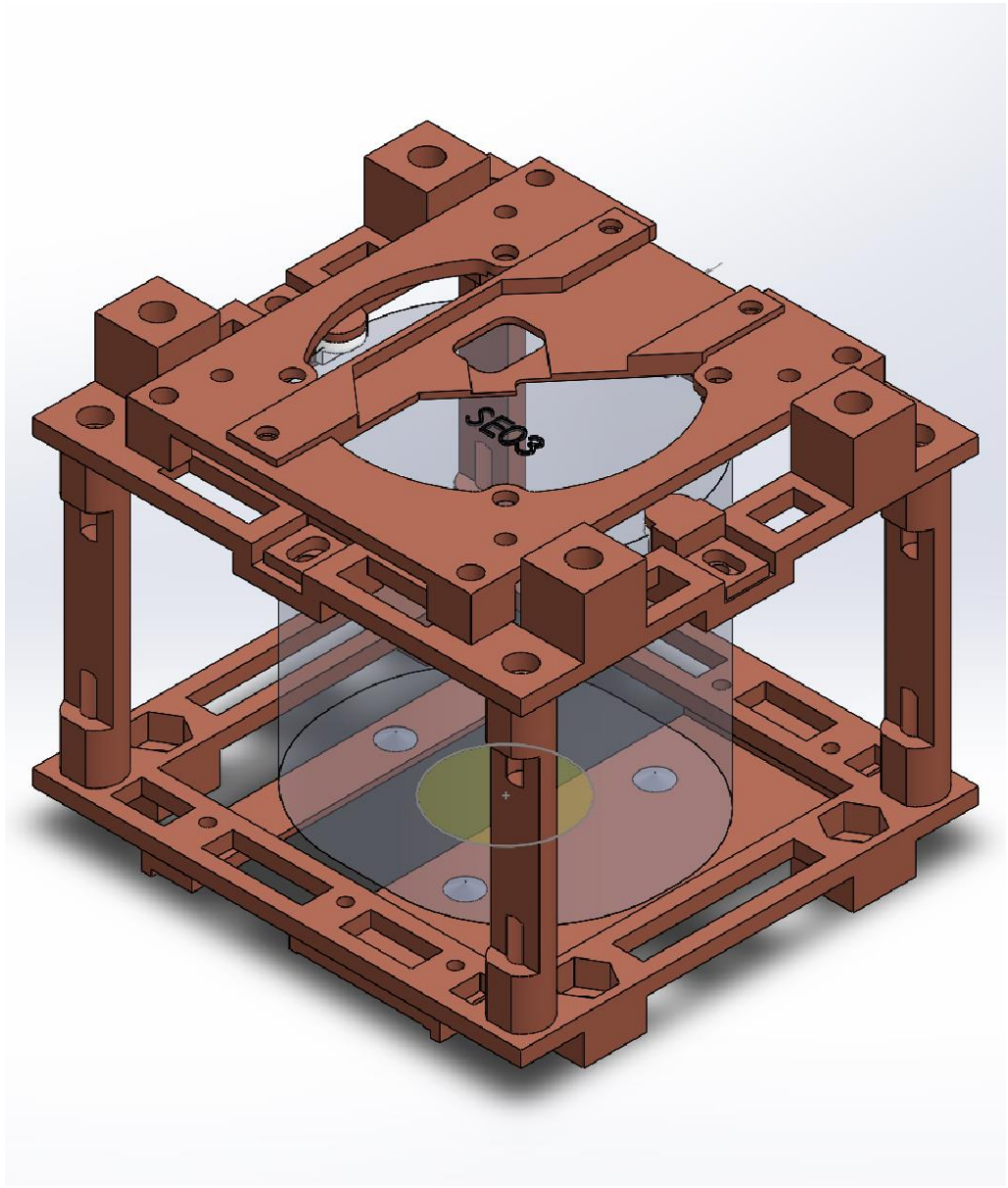


Get rid of this part
(minor goal: Cu
mass reduction)

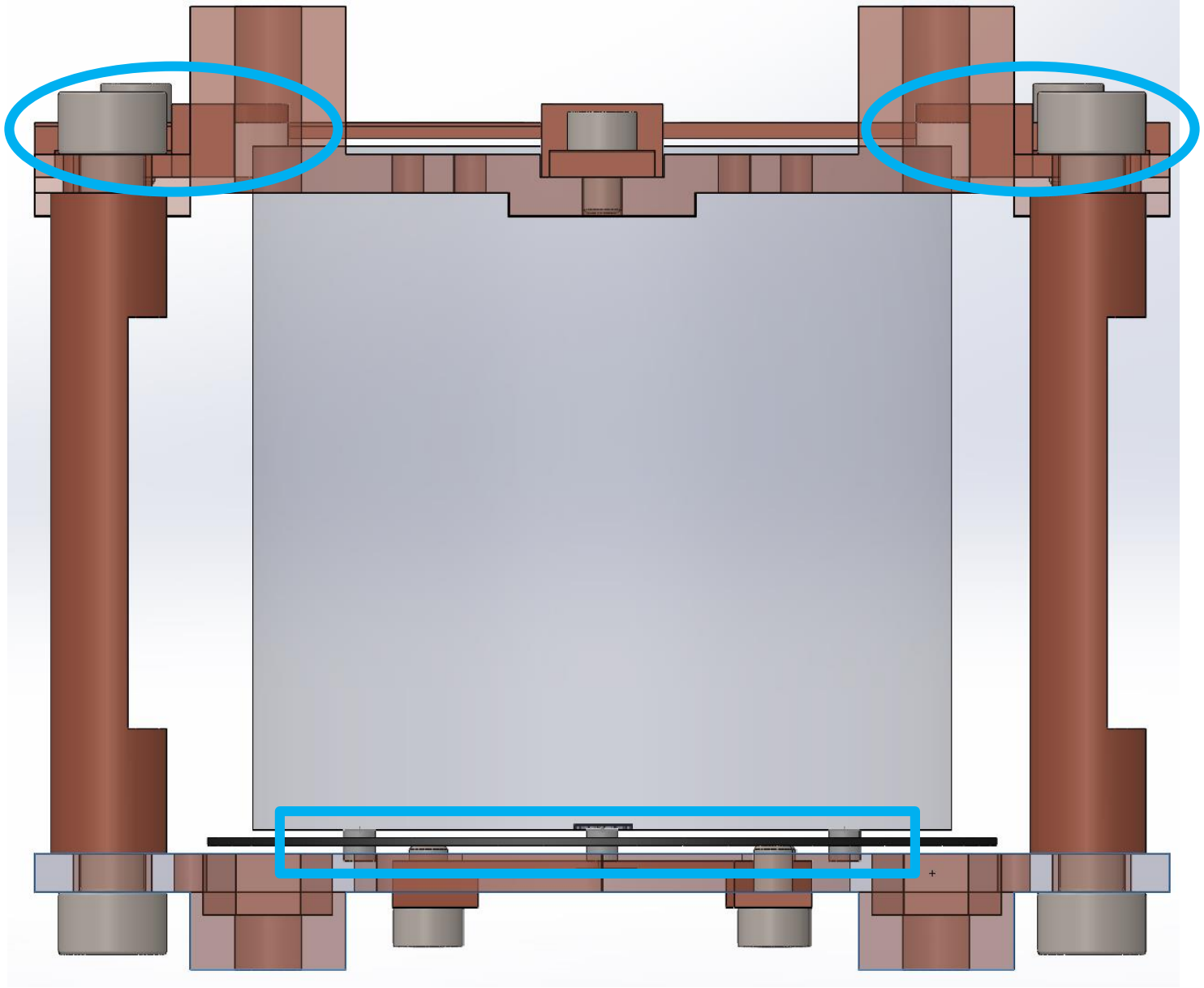
- Goal: reduce photon signal noise by vibration

New detector module design - 190520





New detector module design - 190520

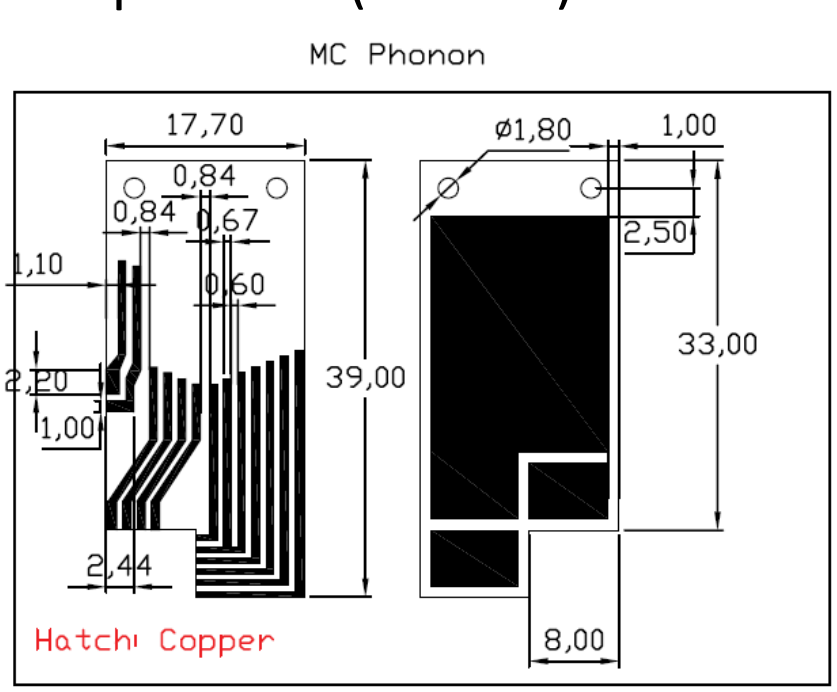


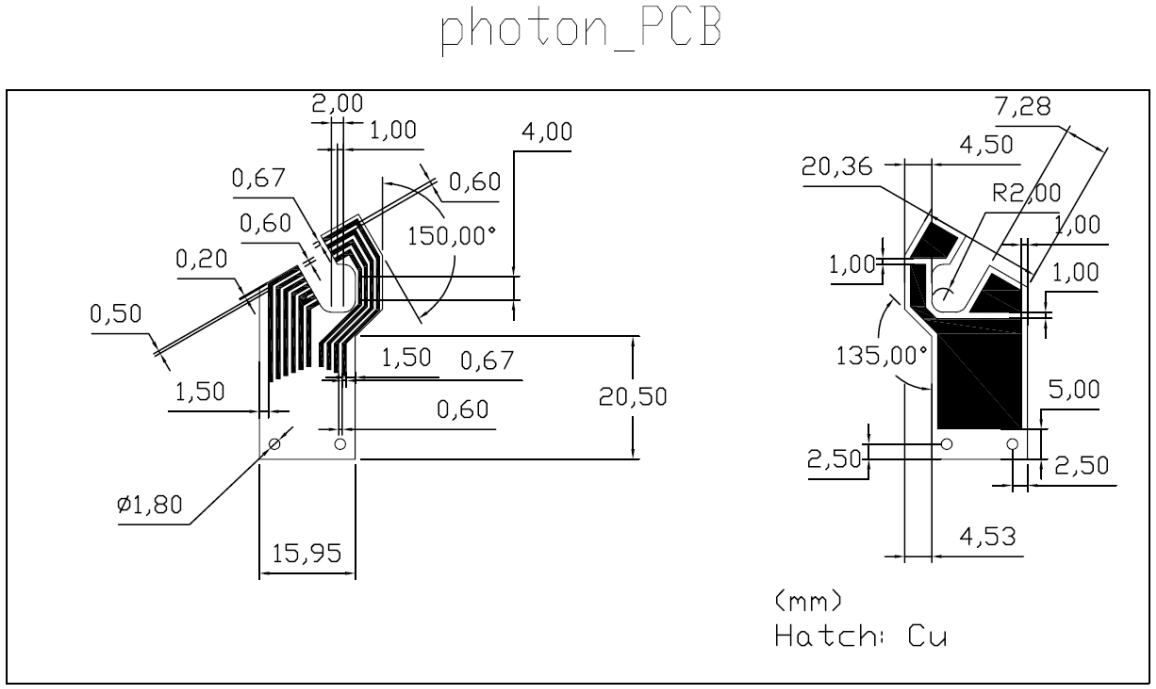
Clamps

Space teflon

Detector Design Improvement

- PCBs:
  - Kapton film(flexible)





Detector Design Improvement

- We have placed the order for the module (in NOSV copper) and PCBs
  - Detectors: May. 27^{th}~28^{th}
- Will be assembled and tested at IBS (RODY refrigerator)

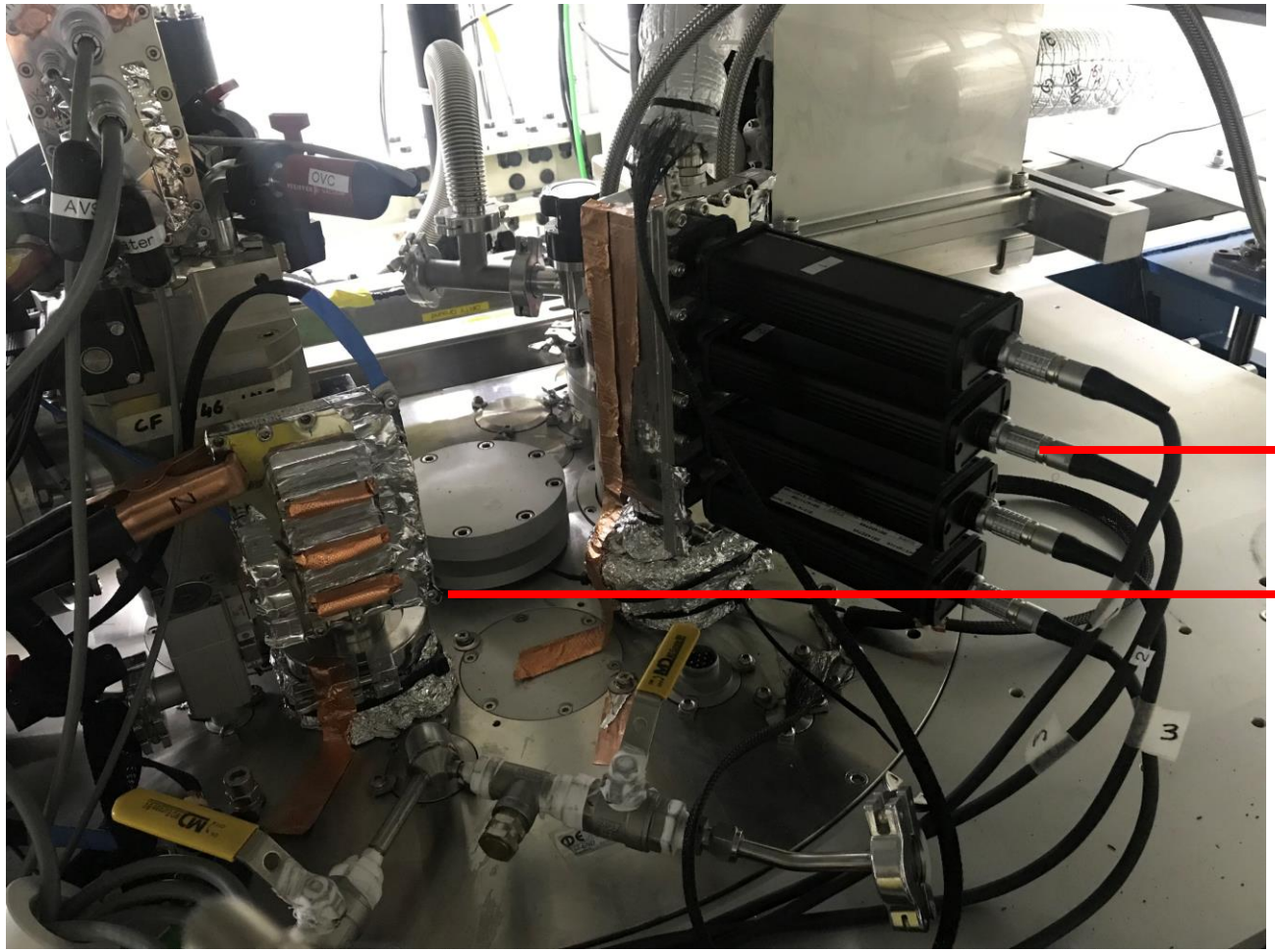
Y2L visit: cryostat wiring (190507~8)

- AMoRE Pilot -> AMoRE-I
  - 6 -> 18 crystals
  - 12 -> 36 SQUID channels, 1 pre-amp connect box = 3 channels

  - Now there are 4 SQUID output ports on the refrigerator

  ➢Need to design new ports

Y2L visit: cryostat wiring (190507~8)



SQUID port + connect box

MMC port

Y2L visit: cryostat wiring (190507~8)