Jan/Feb Shipments

Completed (Jan. 30th): 12 Ti Full, 44 CuW Full, 5 CuW HD Bottom, 5 CuW LD Left

Requests:

CMU:
- 4 Ti LD Full
- 2 CuW LD Full

TTU:
- 24 Ti LD Full
- 2 CuW LD Full

IHEP:
- 14 CuW LD Full

NTU:
- 5 CuW HD Bottom
- 5 CuW LD Left
- 30 CuW HD Full

UCSB:
- 33 CuW HD Full

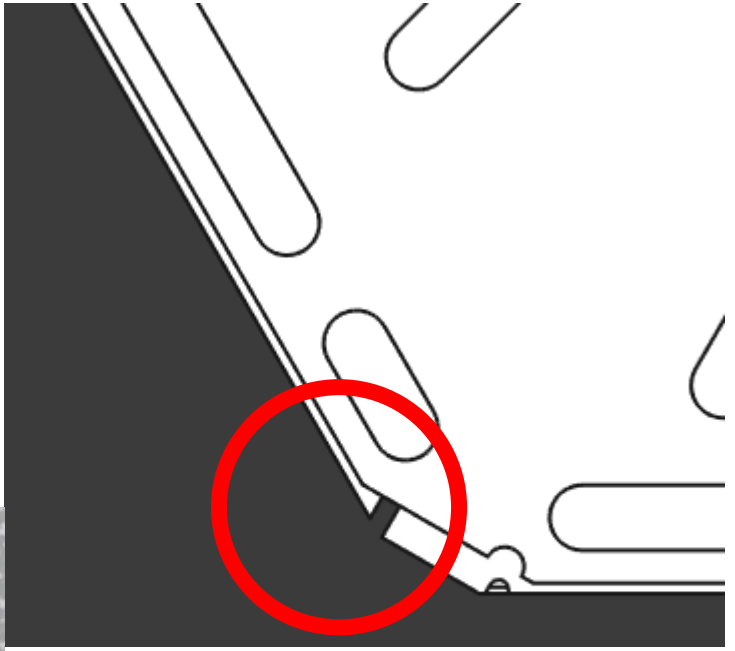
(Radiation test special request)

Current plan:
Complete NTU request
(radiation test needs time),
send remaining **CuW** to IHEP?
(Maximing box utilization)

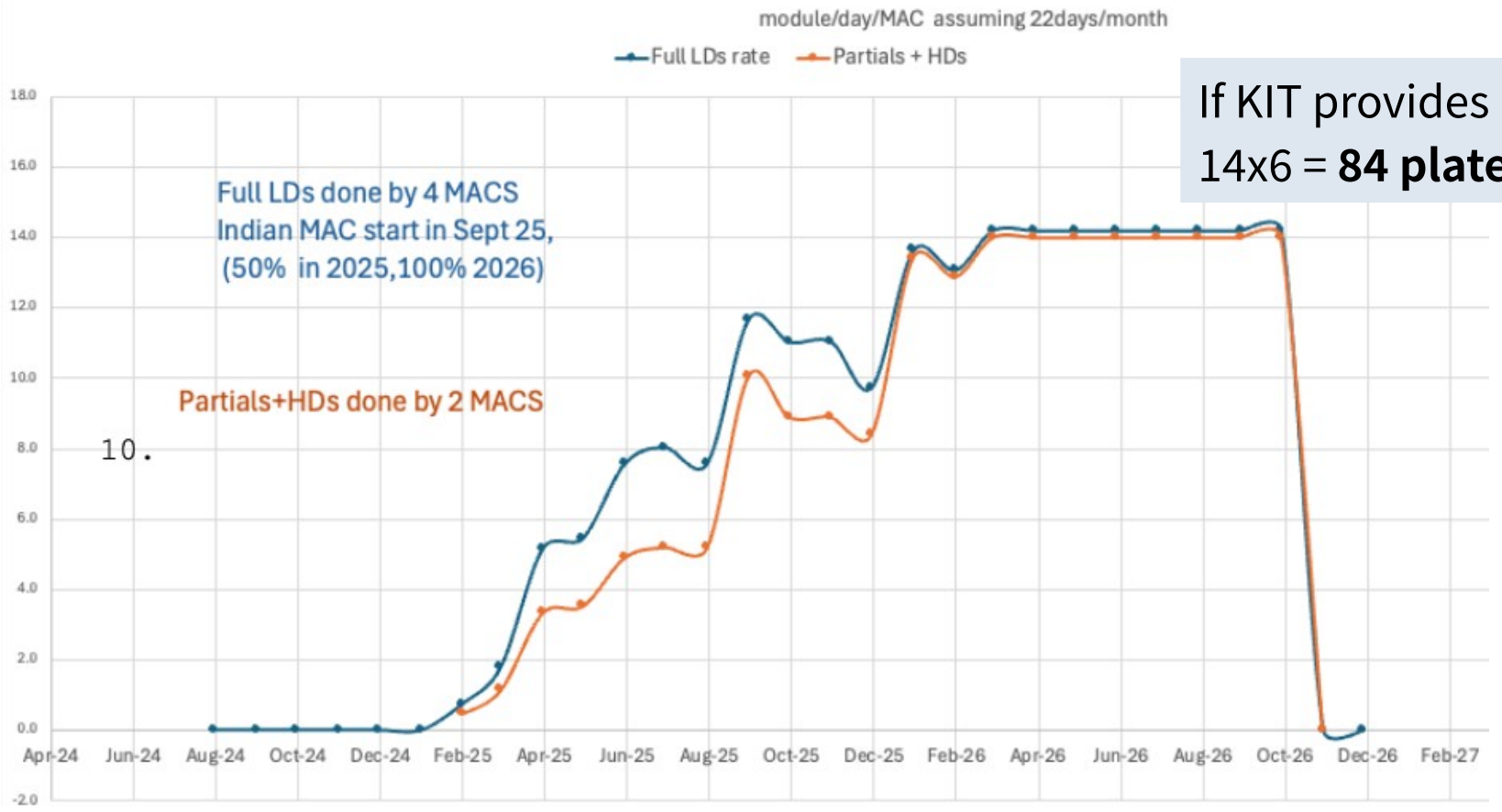
Current limitation:
Metal availably (workshop did partial run/Jonas on holiday)
Keyence – Clean room logistics (not every step is automated)

Changes in production

- Glue cleaning all good!
- Delamination recovery all good!
- Small hiccup with transfer tape **design error**:
  - Simple fix with hole punch (approved by Tobias/Susanne)
  - 1 other transfer tape also contained design error…



Extrapolating for production rate



If KIT provides 100% of plates:
14x6 = **84 plates/day**

Extrapolating for production rate

For just baseplate – Kapton lamination

Single operator workflow

Glue batch 1 (10min)

Dispense (5min/plate)
Laminate+align (5min/plate)
(x6 plates)

1hr

At most

Glue batch 2 (10min)

Dispense (5min/plate)
Laminate+align (5min/plate)
(x6 plates)

At least 1.5hr

At least 1.5hr

Post pot-time inspection
(2-5min/plate) x 12plates

12 plates / 3.5 hr session

Double operator workflow

Glue batch 1 (10min)

Dispense
(5min/plate)
(x12 plates)

Laminate + align
(5min/plate)
(x12 plates)

Glue batch 1 (10min)

Dispense
(5min/plate)
(x12 plates)

Laminate + align
(5min/plate)
(x12 plates)

Post pot-time
inspection

Post pot-time
inspection

24 plates / 3 hr session

This assumes all operators can works as fast as I can right now…
(We need 4 Yi-Mus working full time on this)

Additional overhead

Measurement/QC?

- Even at 3 minute/plate, this is still a **4.2 hr task** to meet daily quota.

Shipping and logistics?

- Carrying 84 plates is not fun…
- Carrying 84 plates to/from the clean room is *extra* unfun

Incoming logistics?

- How fast can the KIT workshop provide plates?
- Will we always have material (metal+kapton)?

Partial/plate variant reconfiguration?

- This should be minimal (5-10min/reconfiguration)

All this adds up to at least **5** people working effectively full time on this to meet 100% demand.