

Disc FPC

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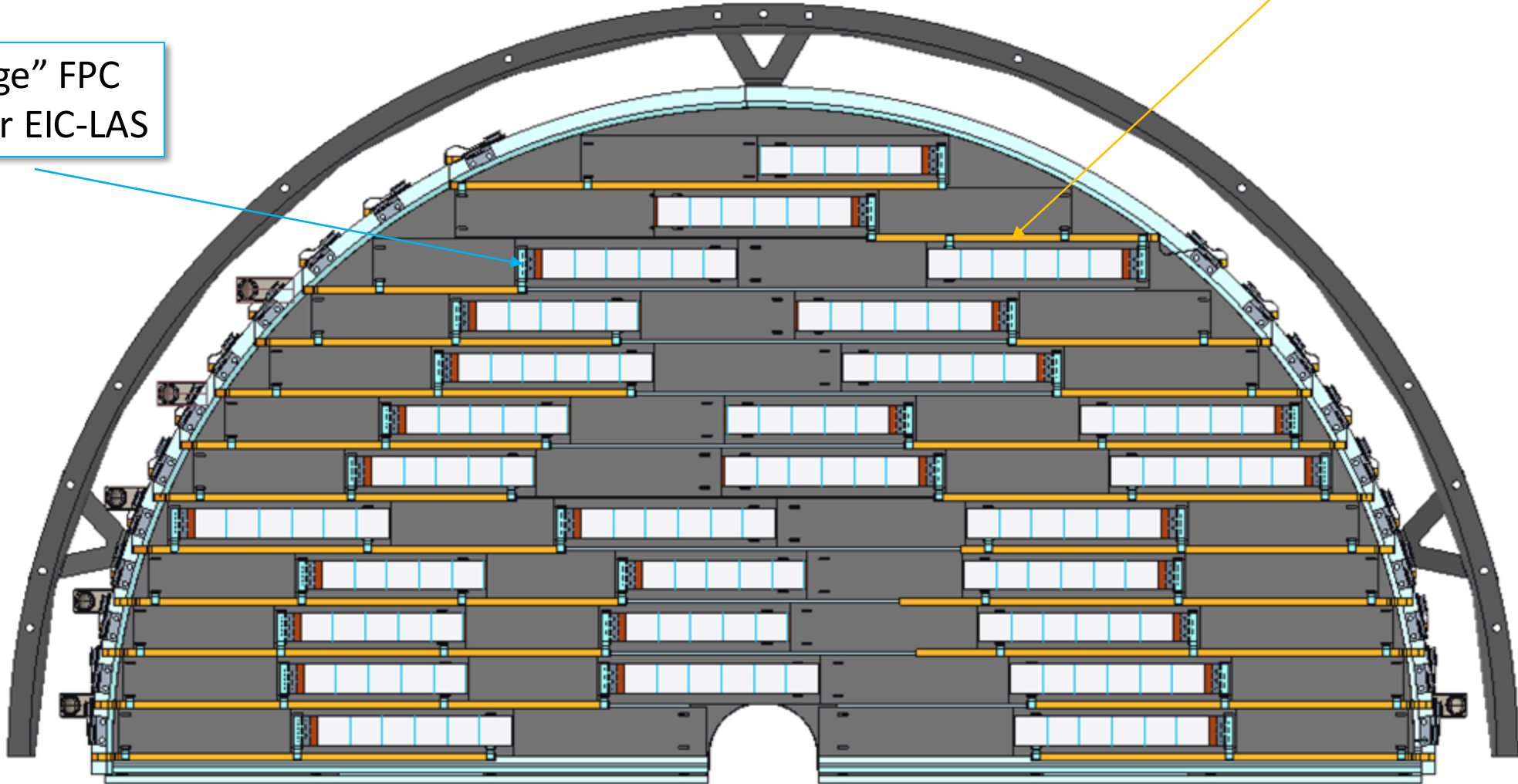
LBNL EIC Meeting

2/11/25

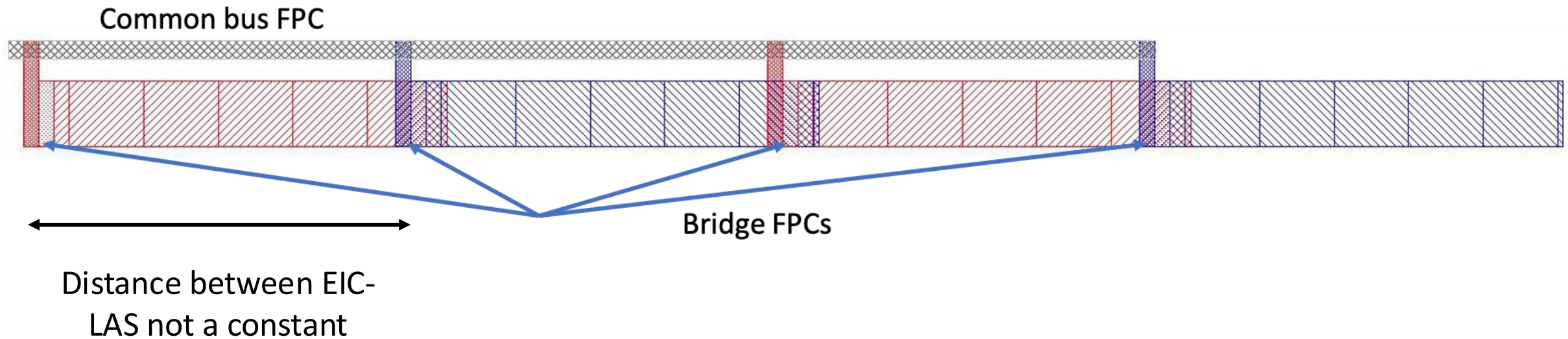
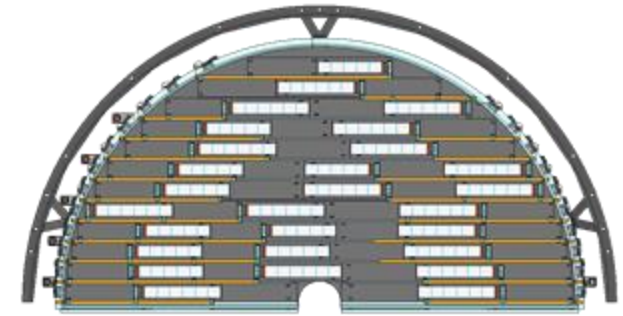
Sensor layout

"Bridge" FPC
One per EIC-LAS

"Common bus" or "Main" FPC
One for up to 4 EIC-LAS

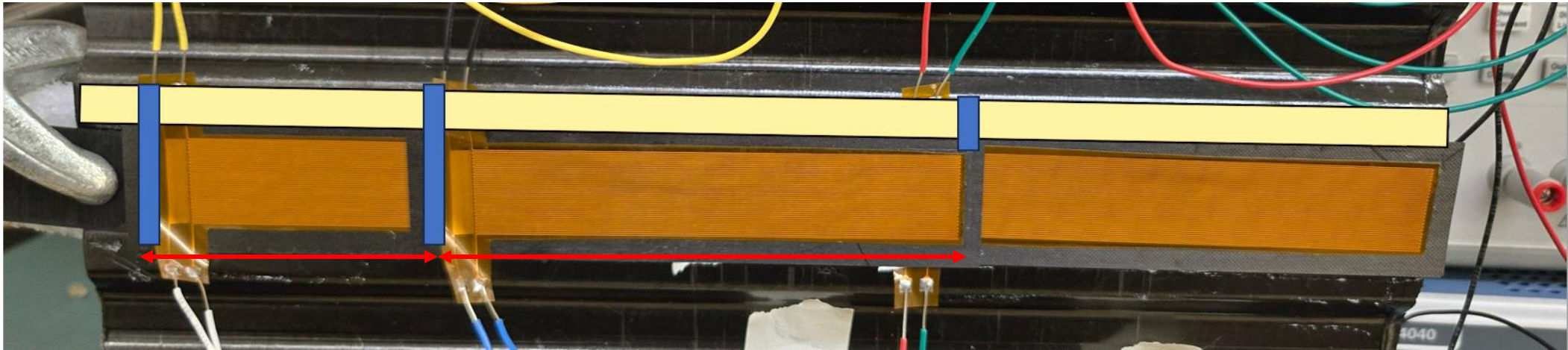
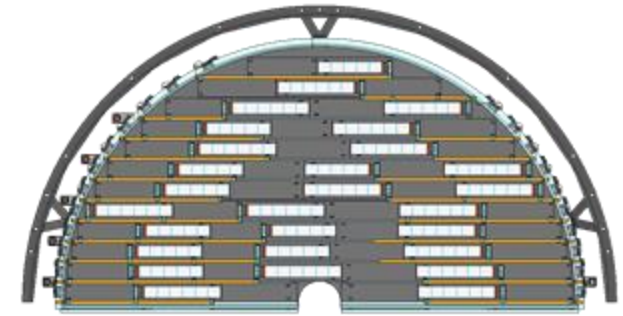


Module grouping



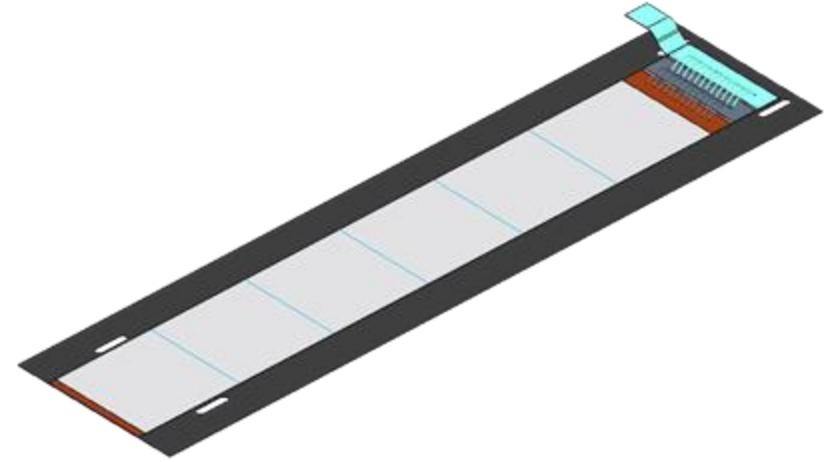
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- The more adjustable the better, but we can work with discrete steps

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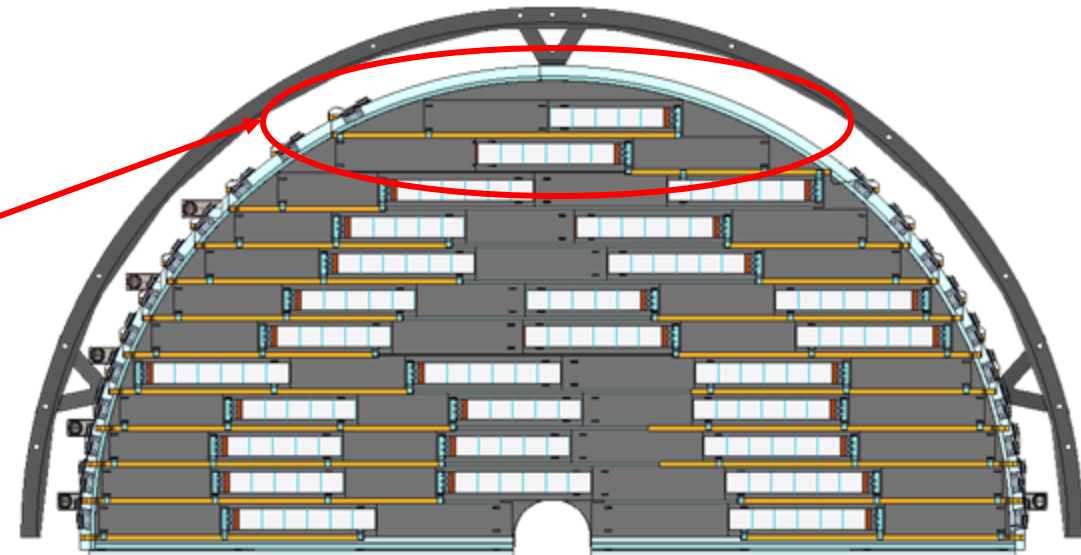
Module grouping & FPC



- 1 bridge FPC per module → up to 4 modules per common FPC
- Bridge FPC & (likely) AncASIC will be bonded during module assembly
- Bridge FPCs need to connect to common FPC after gluing to corrugation
 - Inward facing modules first, then outward
 - Bridge to common connection needs to happen on the disc → **prefer to solder, otherwise disc needs to be moved to wire bonding machine**

Main FPC: Requirements/preferences

- **<(0)40 cm length**
- **<10 mm width** (nominally 5-7 mm)
- Variable connection points
 - TBD based on bridge FPC
- Solder connections
- **5 mm bend radius** (3-4 mm better)
- Attachments from opposite sides of common FPC



Bridge FPC: Requirements/preferences

- <10 mm width (nominally 5-7 mm)
- Solder connections to main FPC
- **5 mm bend radius** (3-4 mm better)
- Can this be made with an extension (creating an L shape)?
 - Takes the complexity out of the main FPC & puts it in the bridge

