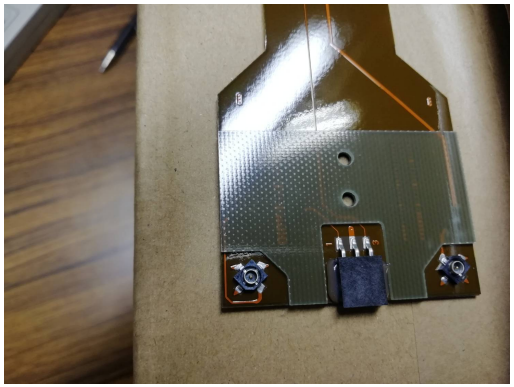
Production Status

RIKEN/RBRC
Itaru Nakagawa

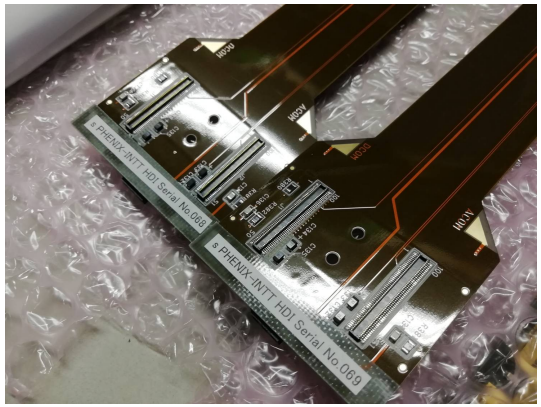
Executive Summary

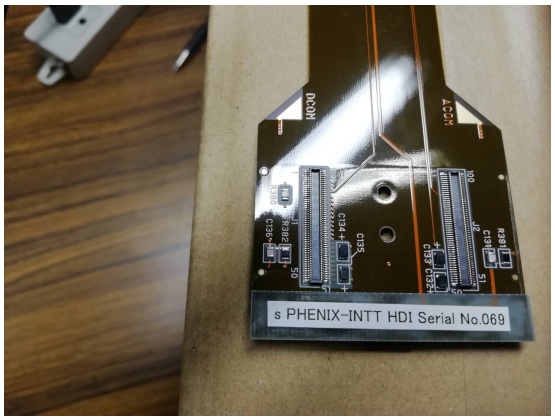
- Silicon Sensors
  - Waiting for a quote from HPK for another 20 sets sillicon sensors in stock.
- FPHX
  - ~1500 good FPHX chips are delivered to NCU on April 29th.
  - Another bag (1600 *good* FPHX) are under preparation to be shipped to NCU in August.
- HDI
  - 20 and 39 HDI's from the 1st batch are already delivered to NCU and BNL, respectively.
  - 120 HDI's were delivered to RIKEN on July 27th.
  - 90 HDI production as 2nd batch is under fabrication. To be delivered by the end of October.
- Stave
  - 3 Staves to BNL pickup date is July 31st.
  - 75 Stave procurement PO went to Asuka on July 22nd.
  - Itaru will visit Asuka this afternoon. Discuss about new flow test and 10 parallel pressure tests, etc.
- Trigger Scintillators and PMTs
  - 5mm thickness 2 x ladder size and 2 x single cell scintillators and light guides are delivered to RIKEN from G-tech on July 28th.
  - Placed PO of 4 PMTs to Hamamatsu. Expected delivery in end of September.

120 HDI's Delivered to RIKEN



Tear drop and wider bias line to enhance strength of soldering





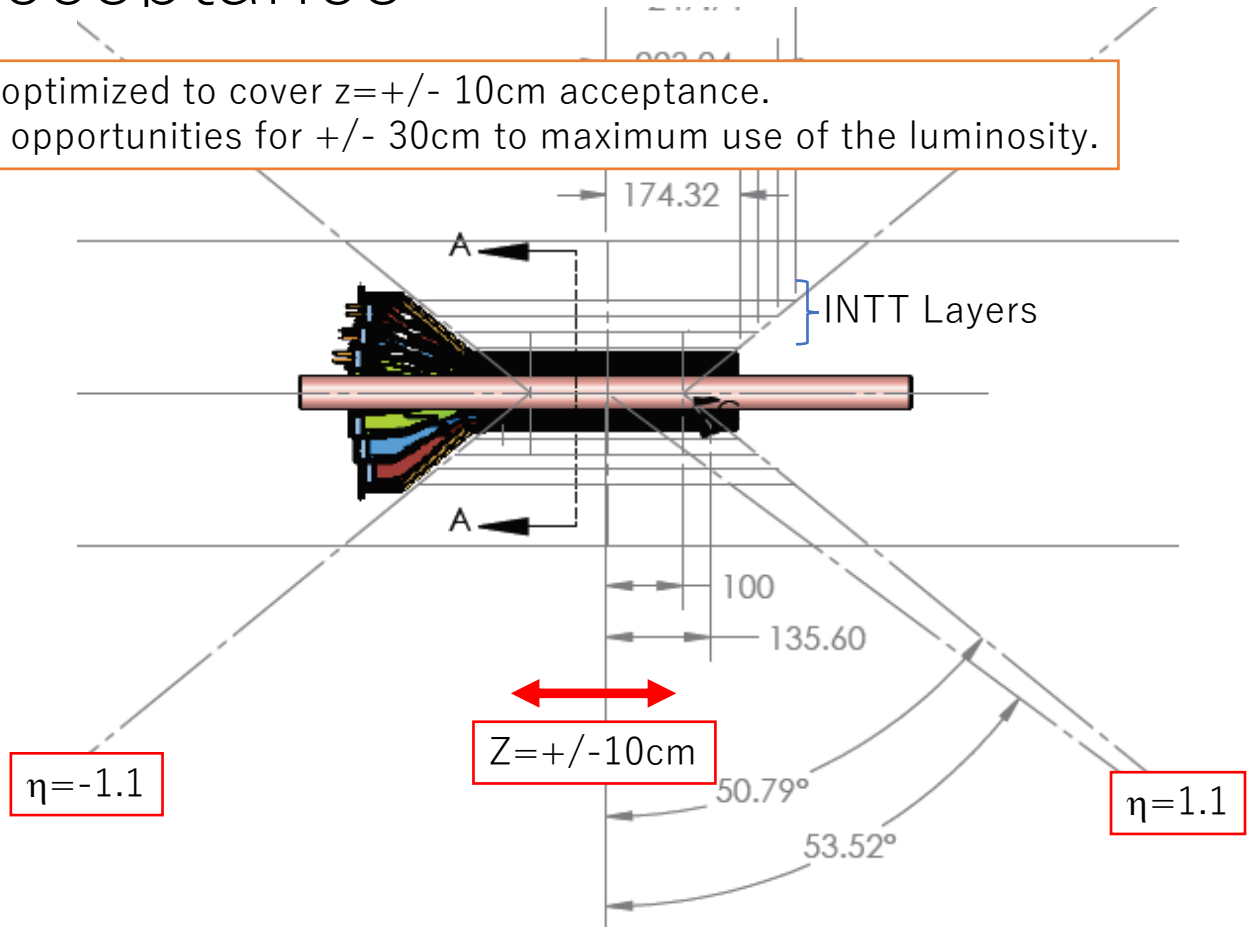
INTT GEANT Model

- Thanks to Genki, the update of INTT GEANT model within the acceptance is completed and confirmed by INTT group.
- Jin asked Genki to report his update in the simulation meeting on August 4th, which is more or less equivalent to report in the tracking meeting.
- Jin also asked us to implement major materials outside the acceptance to study physics opportunity.
  - Bus extender
  - Cooling water service pipes
  - Etc.
- The short term deadline is the beam use proposal (8/31).

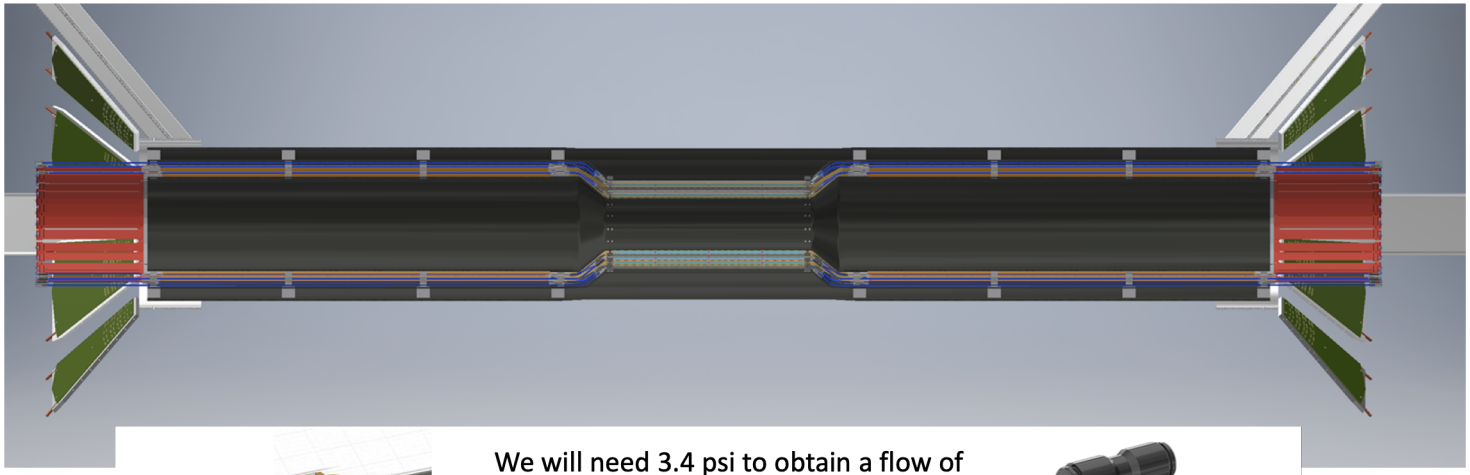
-> Implement only cylinder shape for now.

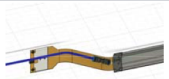
INTT Acceptance

INTT acceptance was optimized to cover z=+/- 10cm acceptance.
Now we study physics opportunities for +/- 30cm to maximum use of the luminosity.

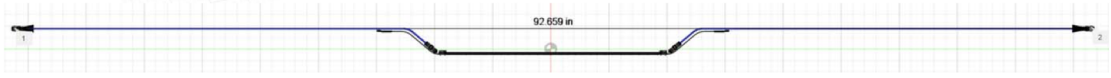


Major Materials outside the acceptance

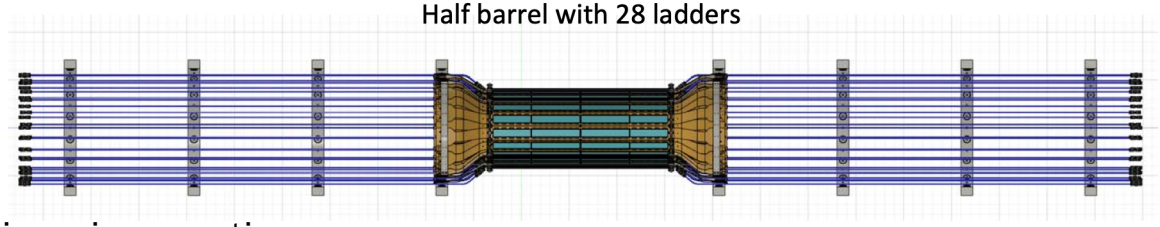




We will need 3.4 psi to obtain a flow of 120ccm per ladder through the barrel.

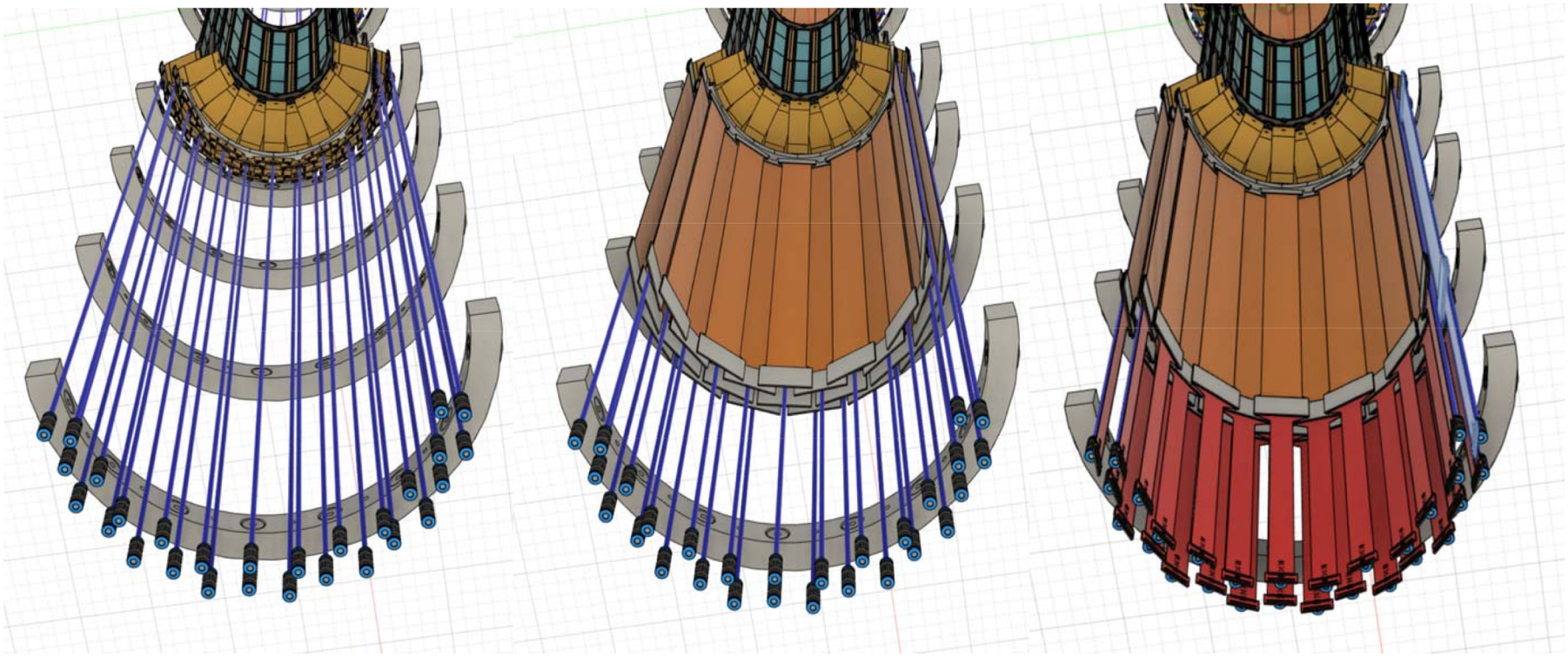


Half barrel with 28 ladders



Rob Pisani's draft
June 2nd INTT Engineering meeting

Cooling tubes



Rob Pisani's draft
June 2nd INTT Engineering meeting

Bus Extender Materials

Circuit Board Materials
電子回路基板材料

For mobile products and automotive components
LCP (Liquid Crystal Polymer) flexible circuit board materials
モバイル・車載機器向け LCP(液晶ポリマー)フレキシブル基板材料

FELIOS LCP

Double-sided copper clad R-F705T

Low transmission loss
低伝送損失

High frequency characteristics
高周波特性

Moisture resistance
耐湿性

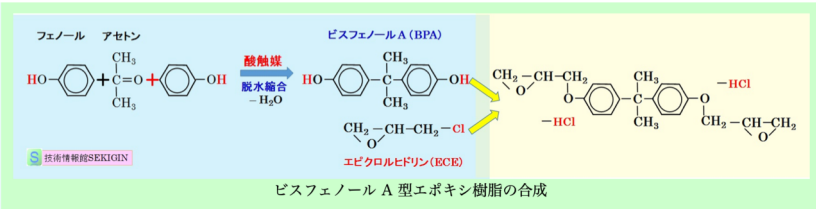
Proposals ご提案

1. Excellent high frequency characteristics
2. Excellent dimensional stability
3. Excellent Peel strength
4. UL94VTM-0 Flammability

1. 優れた高周波特性
2. 優れた寸法安定性
3. 優れた銅箔引き剥がし強さ
4. 耐燃性 94VTM-0

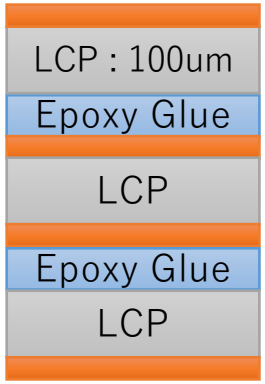
Applications 用途

LCP(液晶ポリマー)フレキシブル基板材料 FELIOS LCP
(2012年6月　パナソニック)



ビスフェノールA型エポキシ樹脂の合成

Cross Section



Cupper : 12um