

Production Status

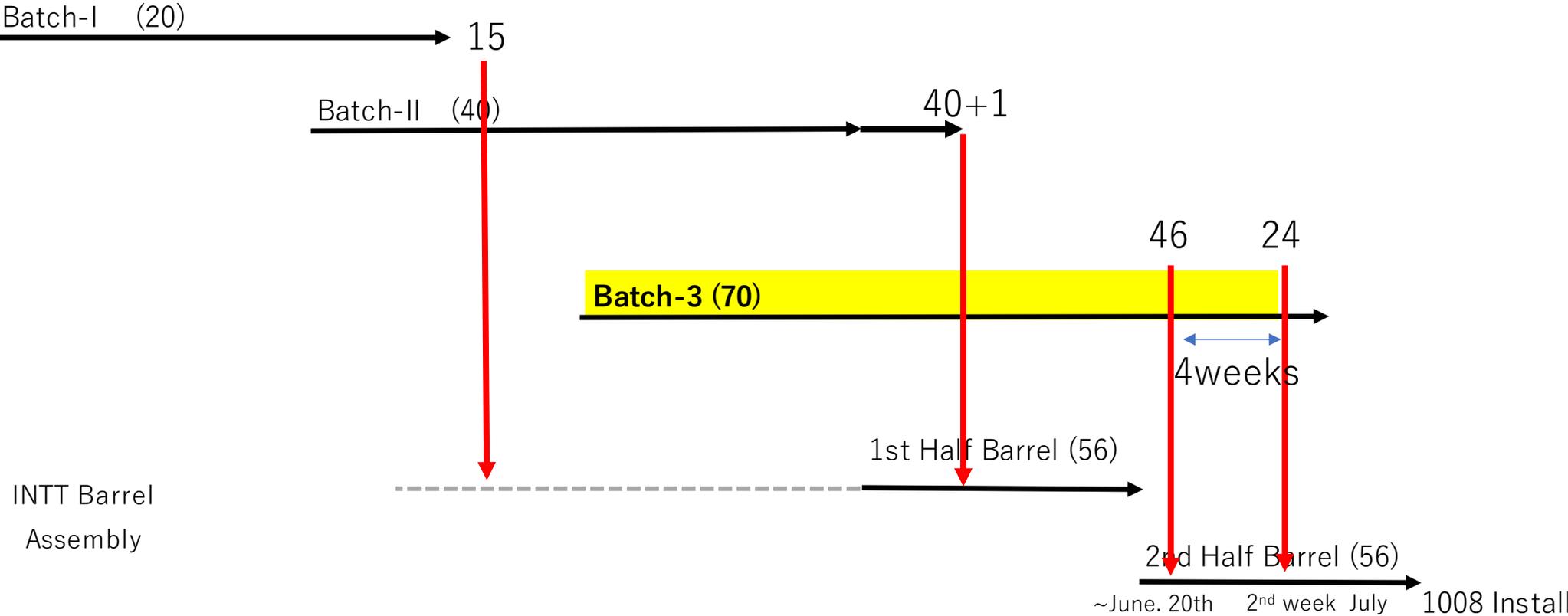
RIKEN/RBRC

Itaru Nakagawa

Bus Extender Production Batch-II, III

Schedule

2021 11 12 2022 1 2 3 4 5 6 7 8 9



| | | | | |
|-------------------|----|----|-----|-----|
| Total Qty. in BNL | 15 | 56 | 102 | 126 |
|-------------------|----|----|-----|-----|

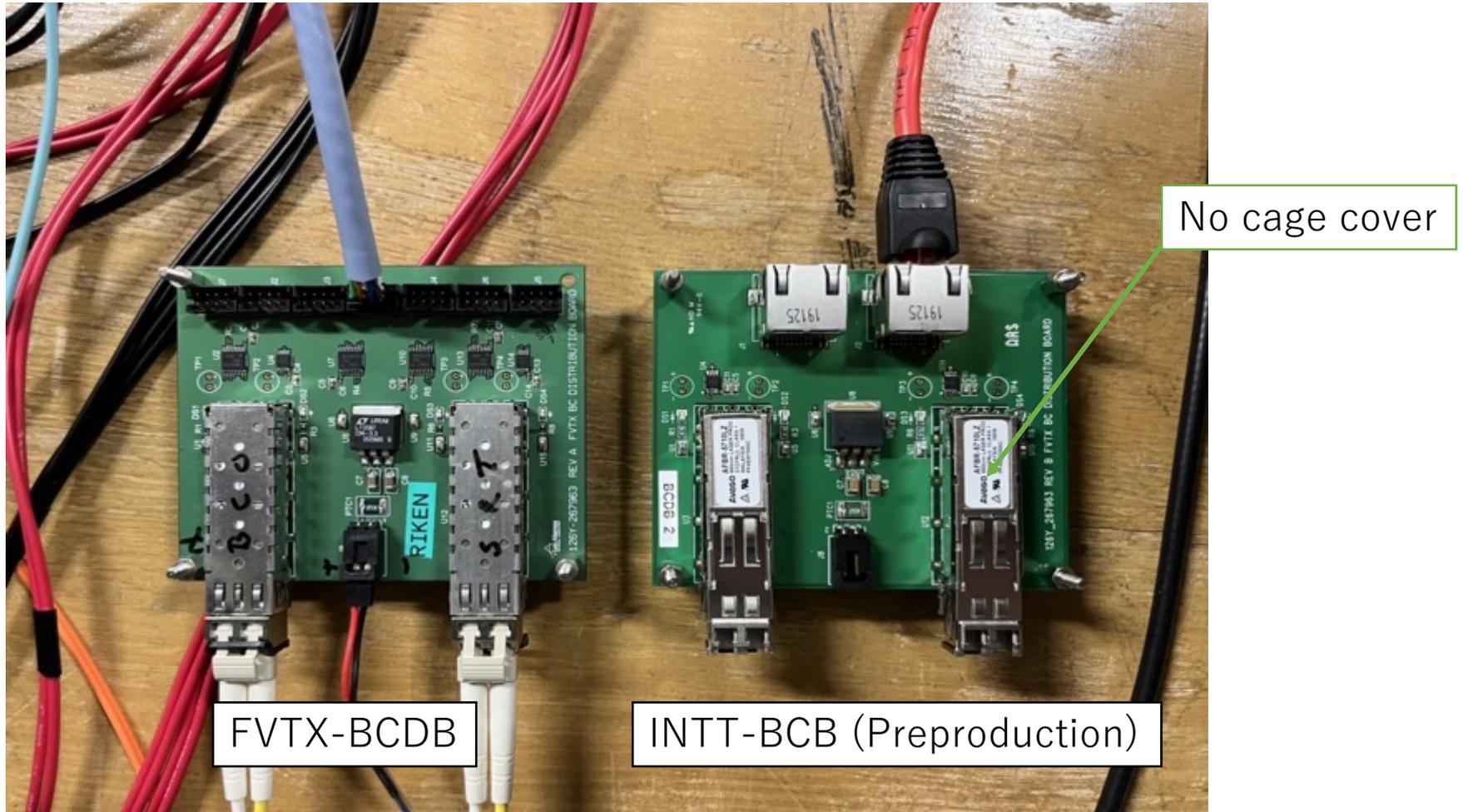
ROC Boards Testing

- Received 4 ROC boards from BNL.
- Will inspect DF18 connectors or chips if there are any damaged ones. Then these boards are handed to Hayashi-REPC co. for the regulator upgrade and repair (June ~ July).

Beam Clock Board

Pre-Production Beam Clock Board

2 Pre-production boards were delivered to RIKEN on June 20th (Monday)

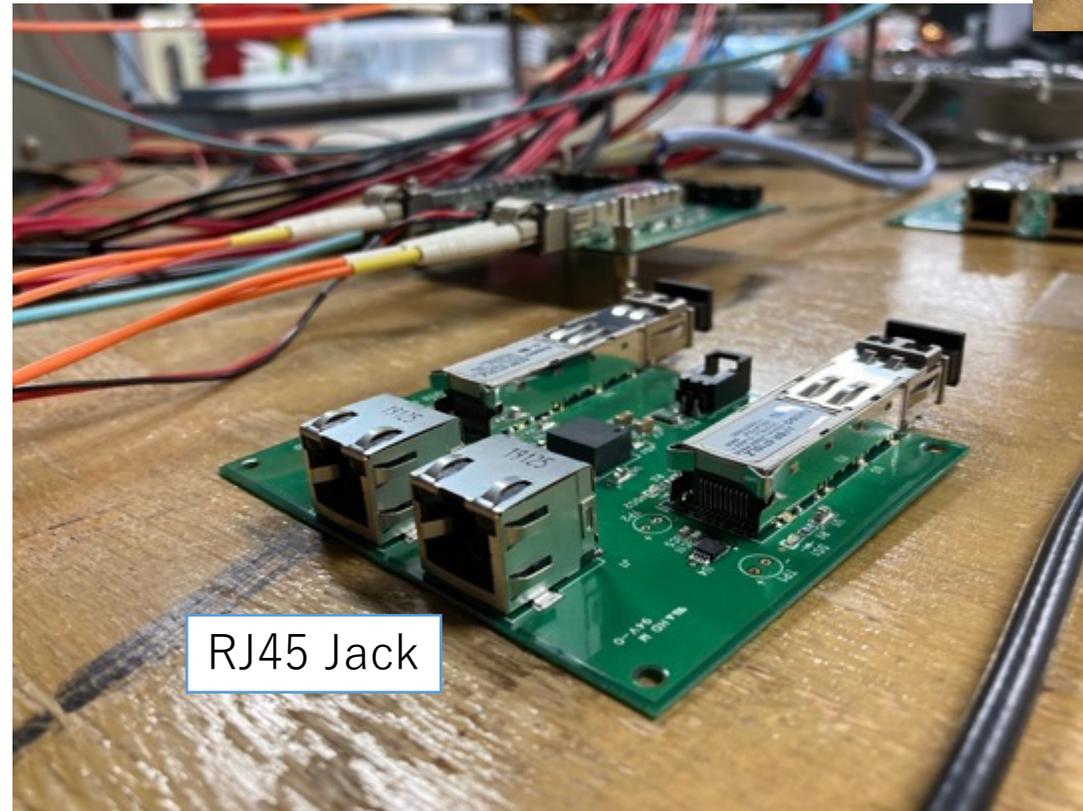
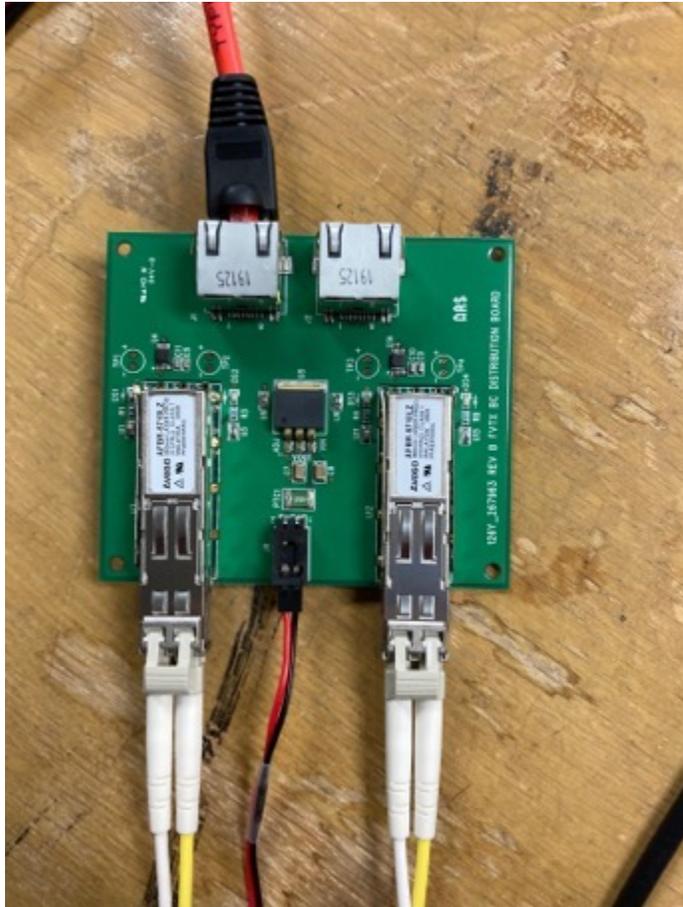
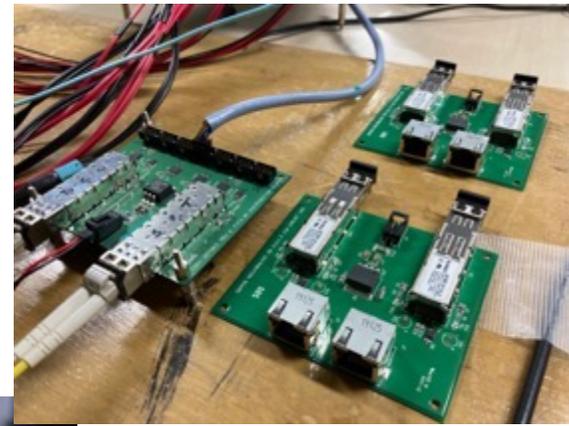


FVTX-BCDB

INTT-BCB (Preproduction)

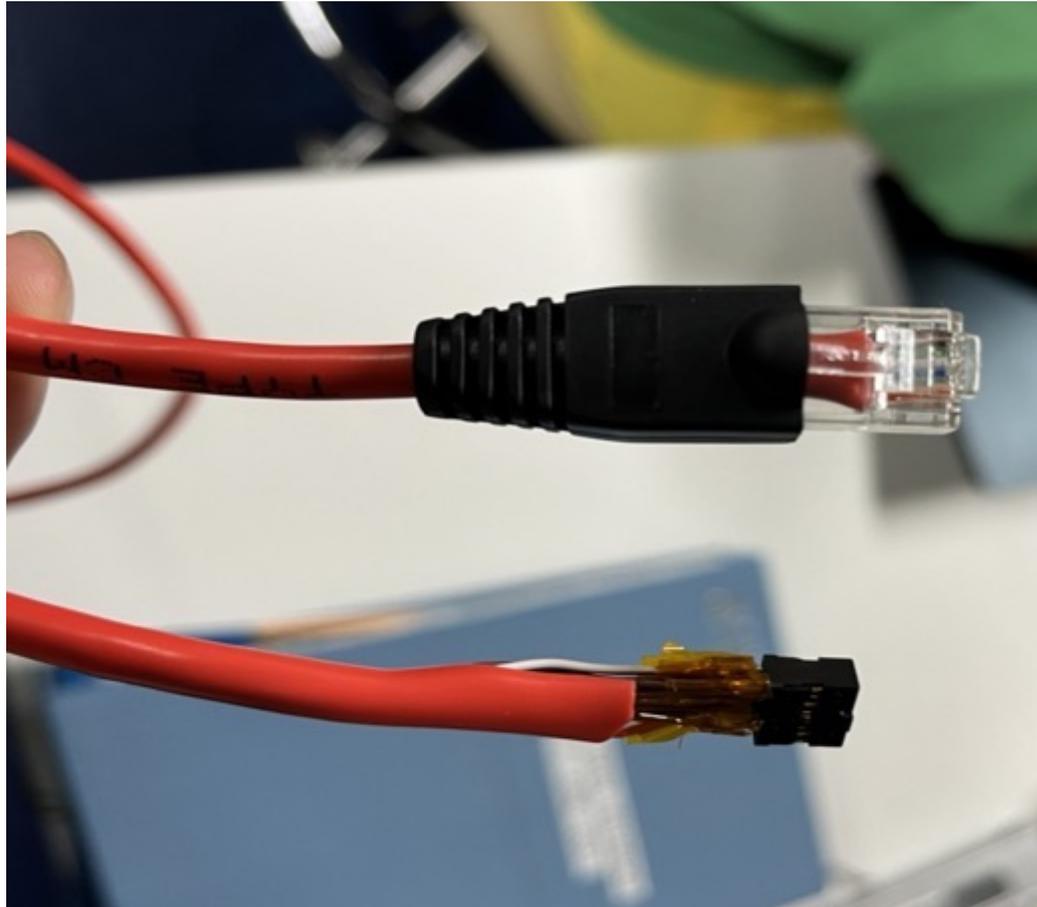
No cage cover

New BCB Board Pre-Production



RJ45 Jack

New BCLK Cable Manufactured in RIKEN

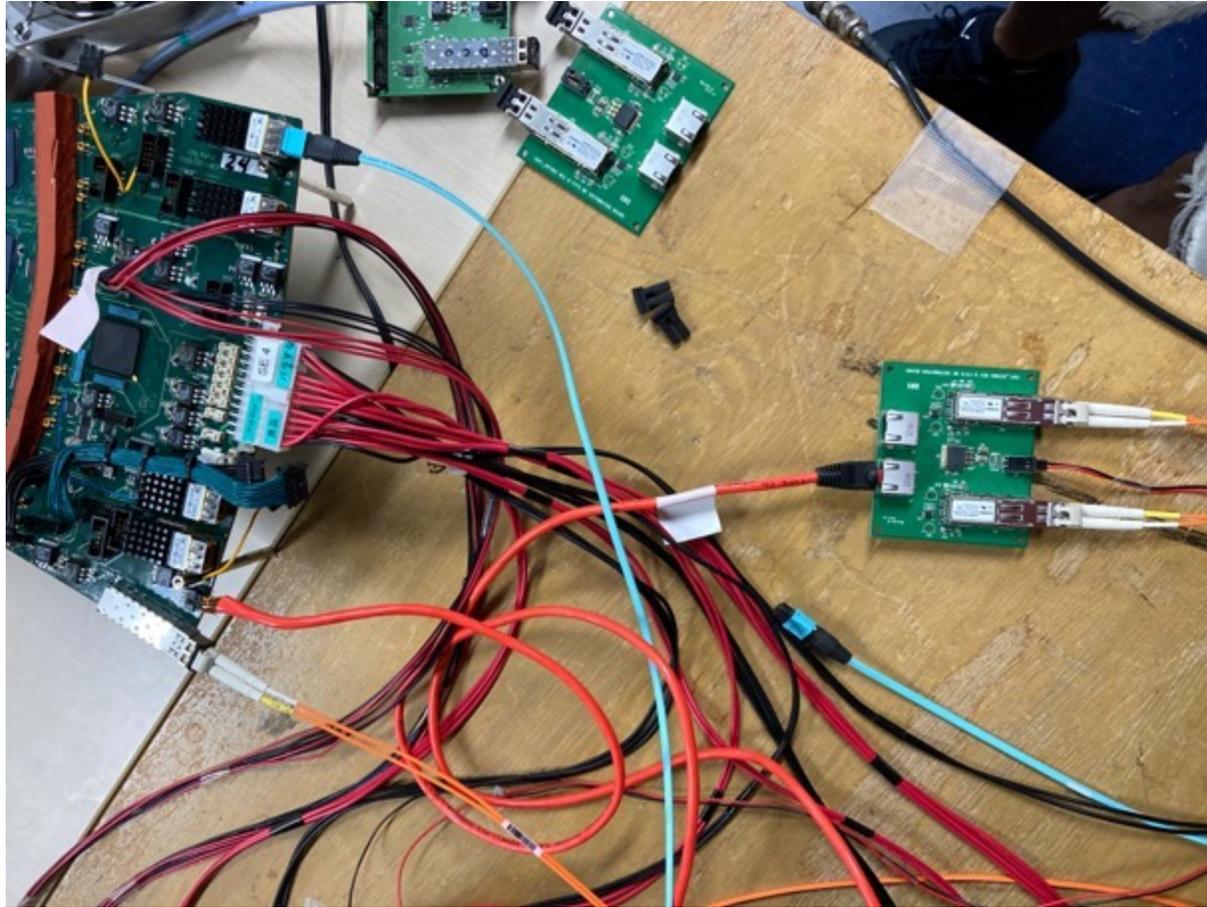


Channel Map

| BCDB | ROC | Label |
|------|-----|--------|
| 1 | 1 | DGND |
| 2 | 2 | DGND |
| 3 | 3 | BCOp |
| 4 | 4 | BCOn |
| 5 | 5 | STARTp |
| 6 | 6 | STARTn |
| 7 | 7 | DGND |
| 8 | 8 | DGND |

Functionality test of BCB includes testing of the channel map of the cable.

Calibration Test



- Attempted to take a calibration data with new INTT BCB-preproduction board.
- The calibration data taking was successful.
- However, the BCLK cable has to be modified in different channel maps from the expected one.

New BCLK Cable Manufactured in RIKEN

Manufactured by Ryota Shishikura

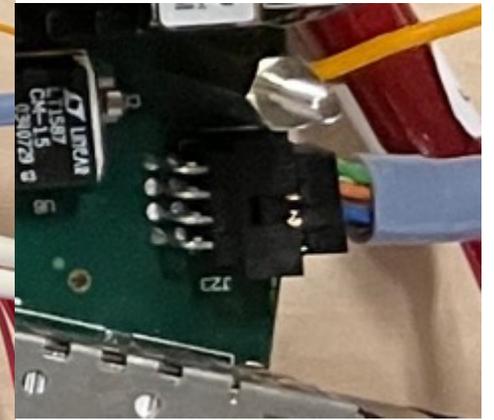
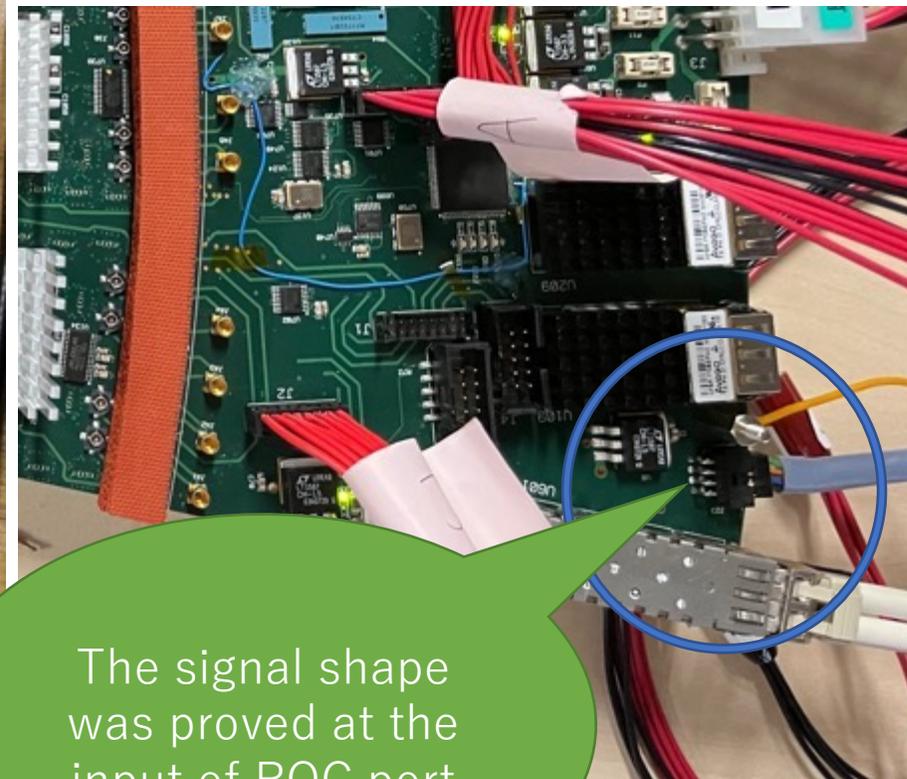


Channel Map

| BCDB | ROC | ROC | Label |
|------|-----|-----|--------------------|
| 1 | 1 | 2 | DGND |
| 2 | 2 | 1 | DGND |
| 3 | 3 | 4 | BCOp |
| 4 | 4 | 3 | BCOn |
| 5 | 5 | 6 | START _p |
| 6 | 6 | 5 | START _n |
| 7 | 7 | 8 | DGND |
| 8 | 8 | 7 | DGND |

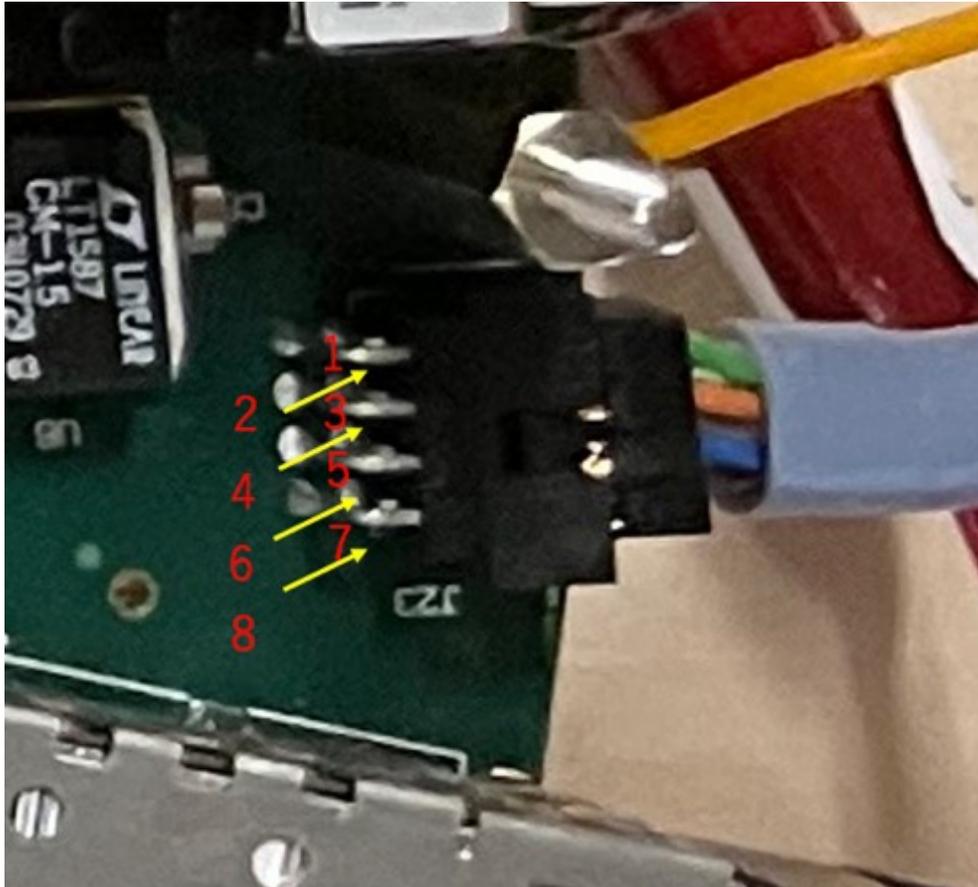
Some how positive and negative channels have to be flipped to make the calibration working. Further investigation is underway.

Beam Clock Signal Observation



The signal shape was proved at the input of ROC port

測定方法



この番号は先ほどのチャンネルマップに当たる番号であり、ここにプローブを当てオシロスコープで出力を確認する。

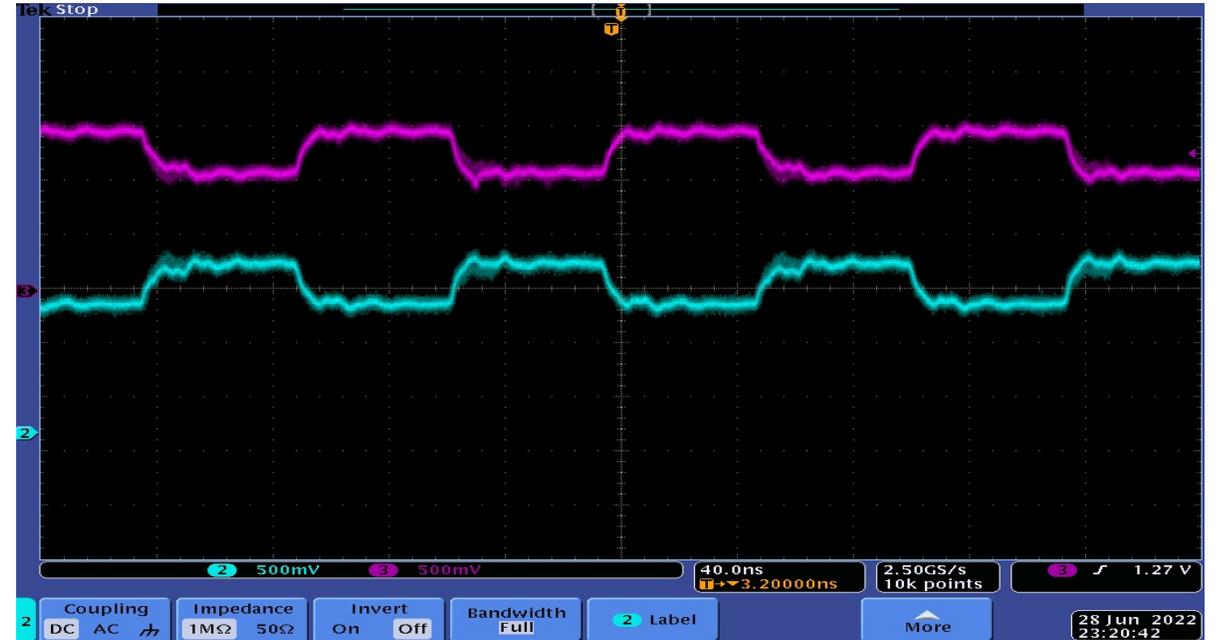
- ①旧BCDB
- ②新BCDB+自作ケーブル 1
- ③新BCDB+自作ケーブル 2

Signal Comparison

FVTX-BCDB



INTT-BCB (Preproduction)



Looks they are almost identical. OK

INTT Collaboration Meeting

INTT Collaboration Meeting in BNL

- Many members are going to travel to BNL this Summer.
- I would like to propose a collaboration meeting in August at BNL
- Review activities in each institutes to understand each other's work and figure out if there is anything overlooked.
- Discuss plans and schedules for this Fall and Winter.