INTT ladder transportation

Cheng-Wei Shih

2022/07/06

Content

- Content of the box
- The procedures to open the box
- Attention
- Information (impact label & humidity indicator)
- The method to fix the ladder
- The performance of the 4 shipped ladders

Content of the box

- 1 * transportation box :
  - 4 ladders
    - 02-0062 : HL348 + HL341
    - 02-0056 : HL267 + HL333
    - 02-0065 : HL349 + HL345
    - 02-0080 : HL024 + HL258

The photo of the outer box

Top side

25 G impact label

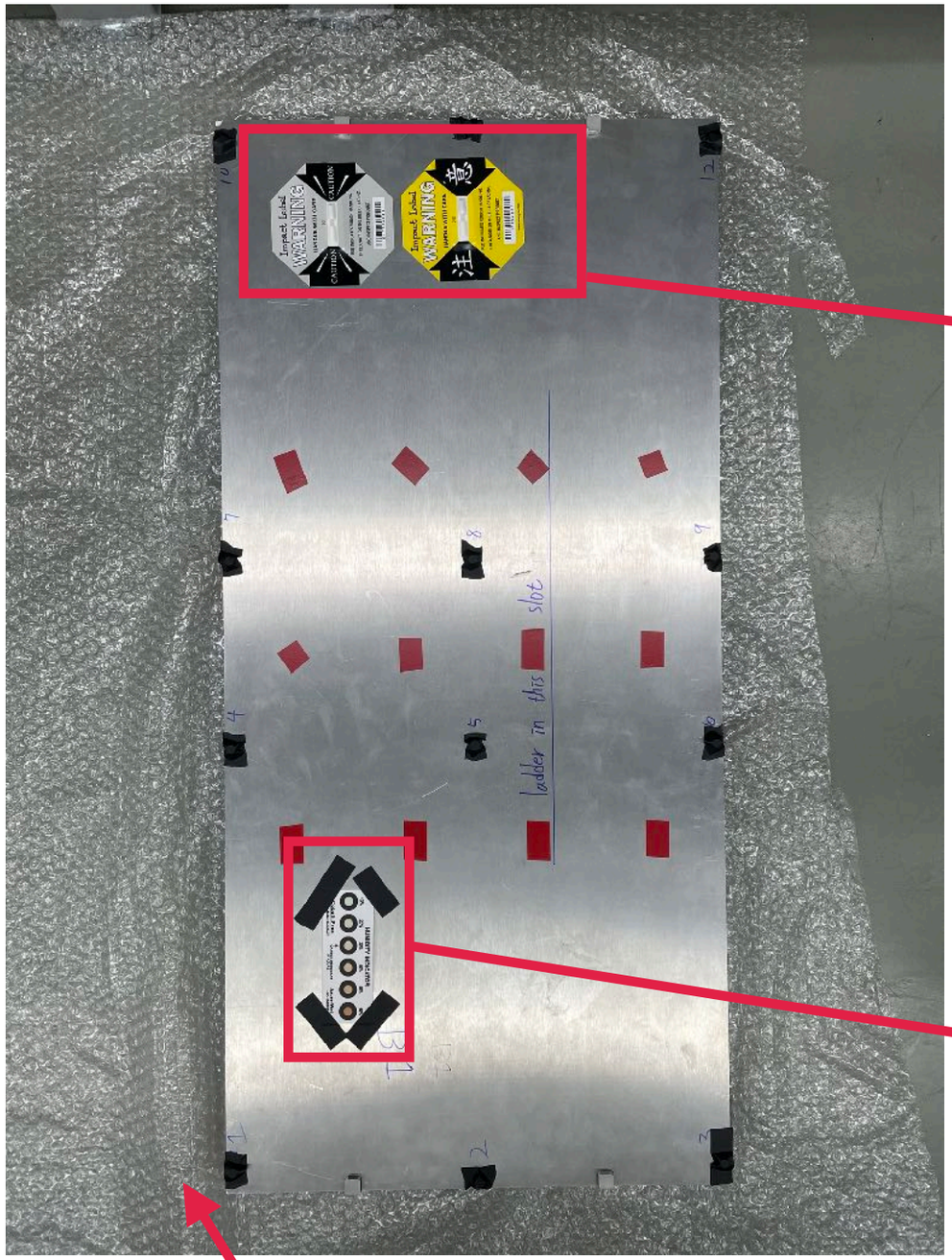
Procedures to open the box

Open the box

The transportation box is wrapped with bubble paper first

Procedures to open the box

Top side

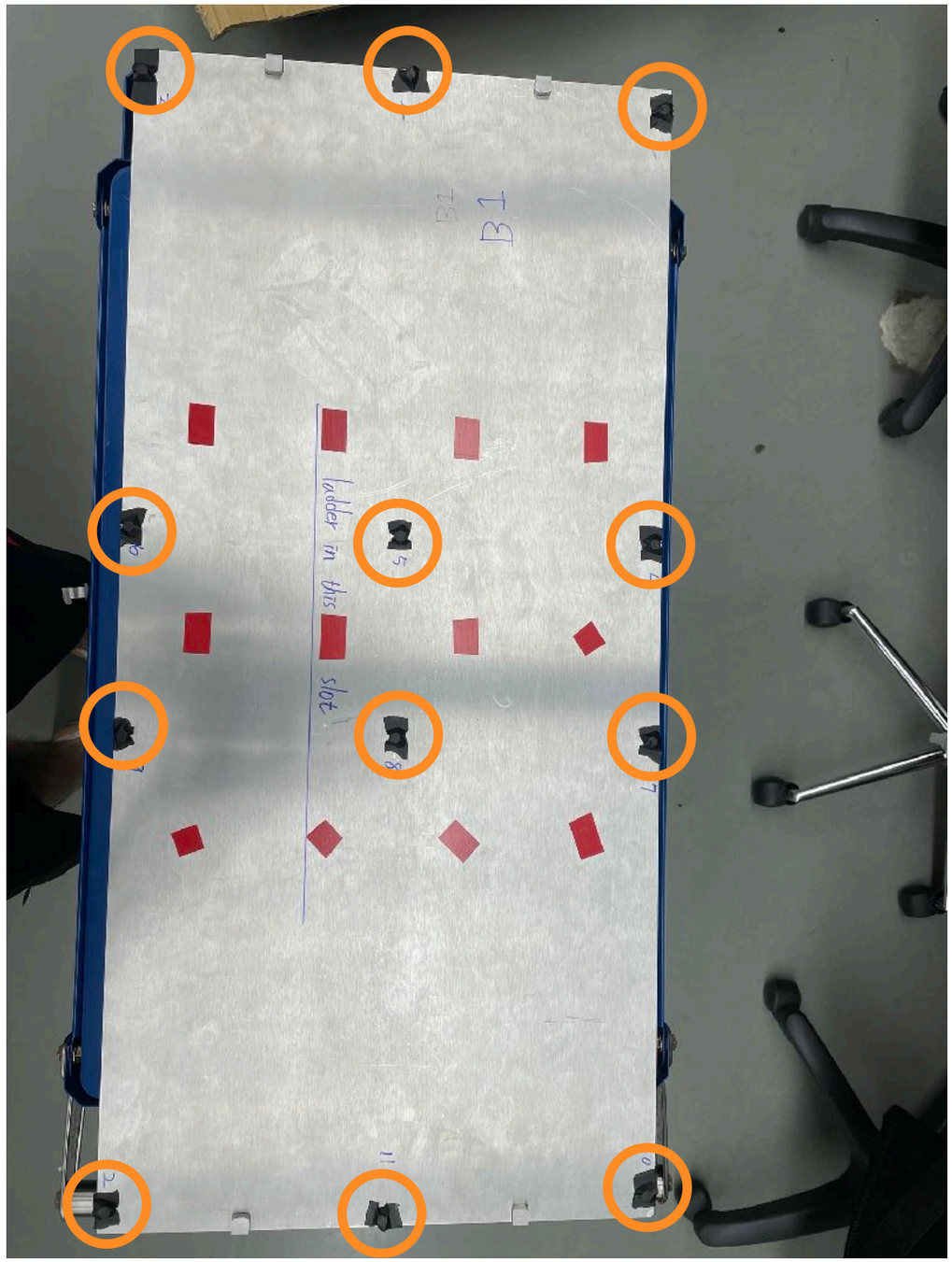


The transportation box is wrapped with bubble paper first

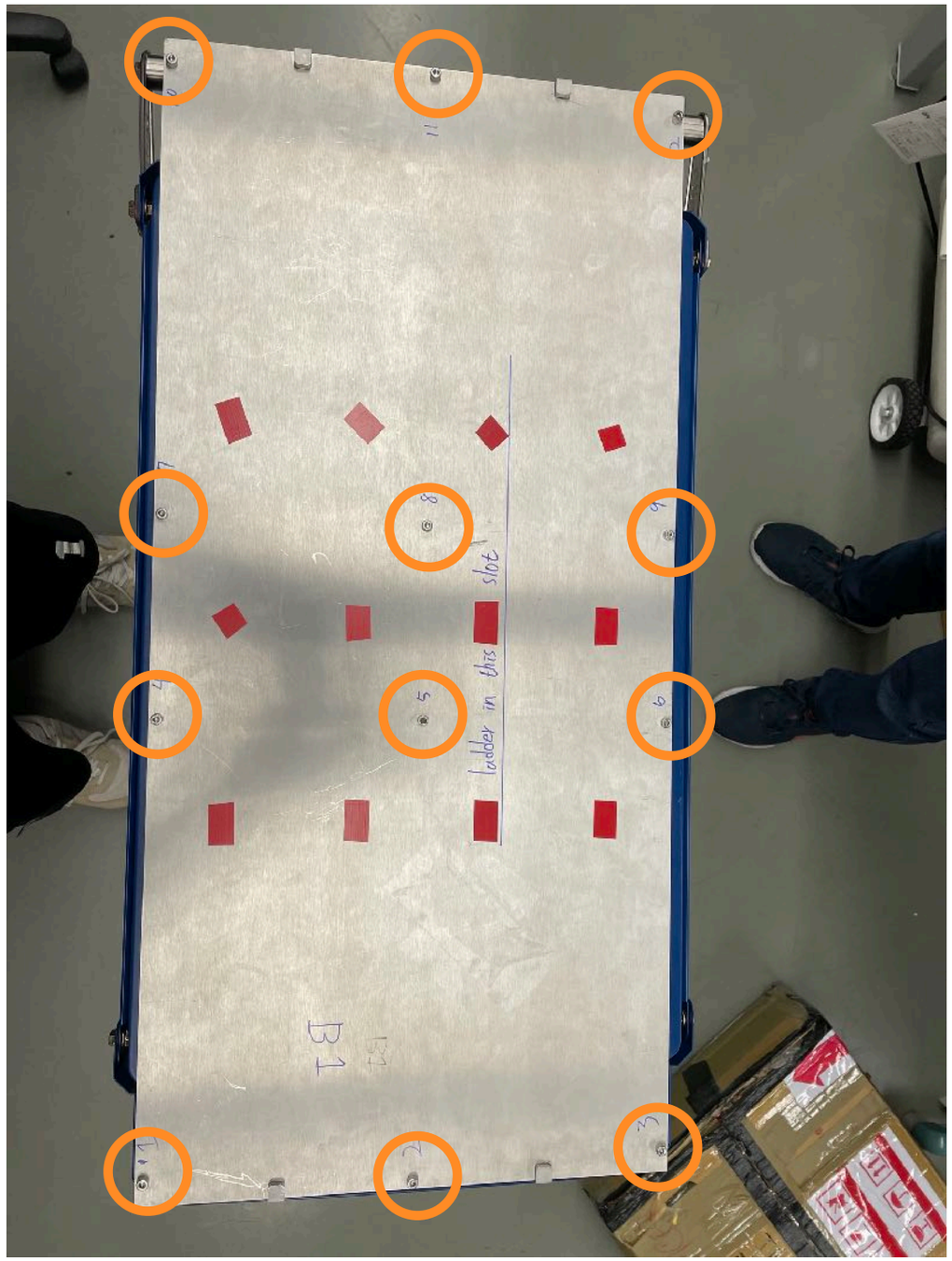
15 G / 25 G impact label

Humidity indicator

Procedures to open the box



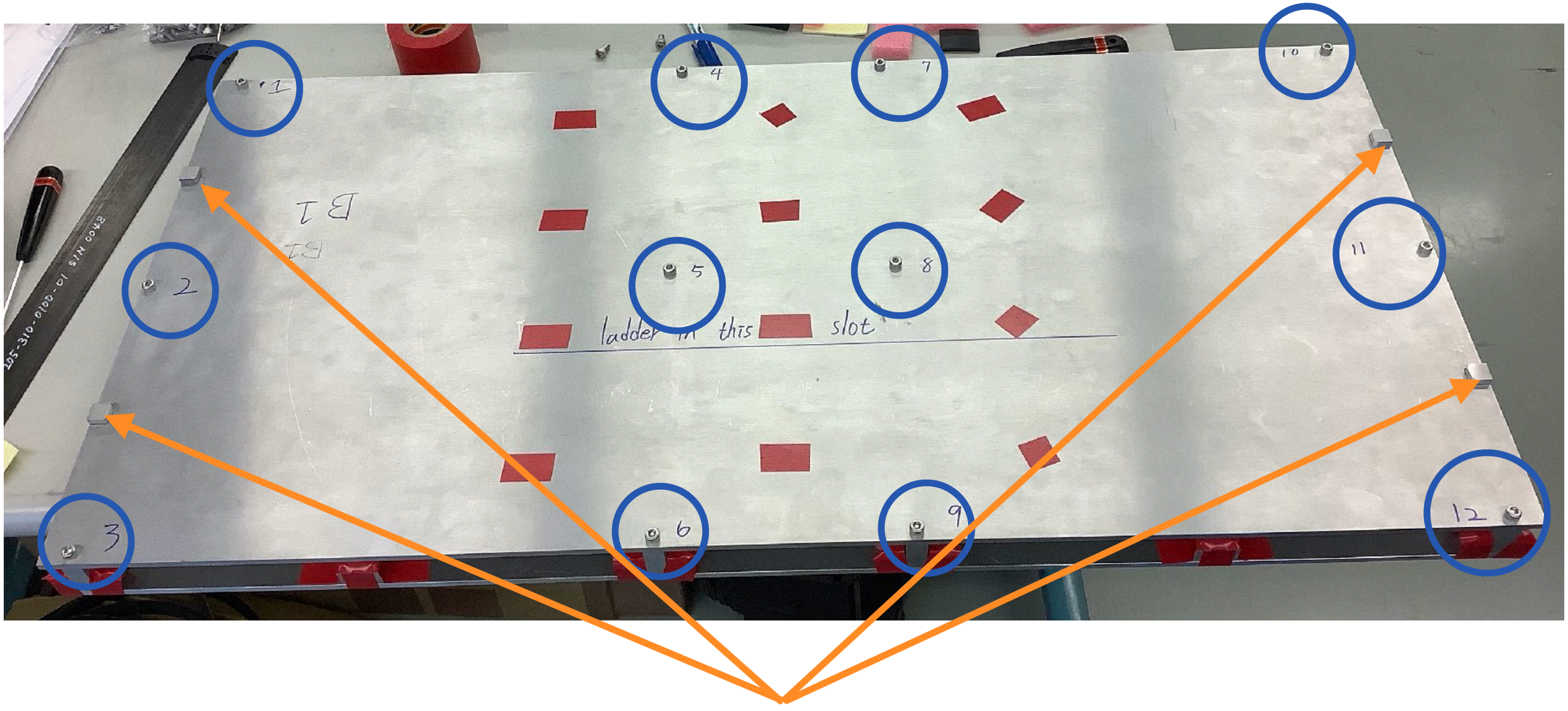
Remove the black tapes (12 tapes)



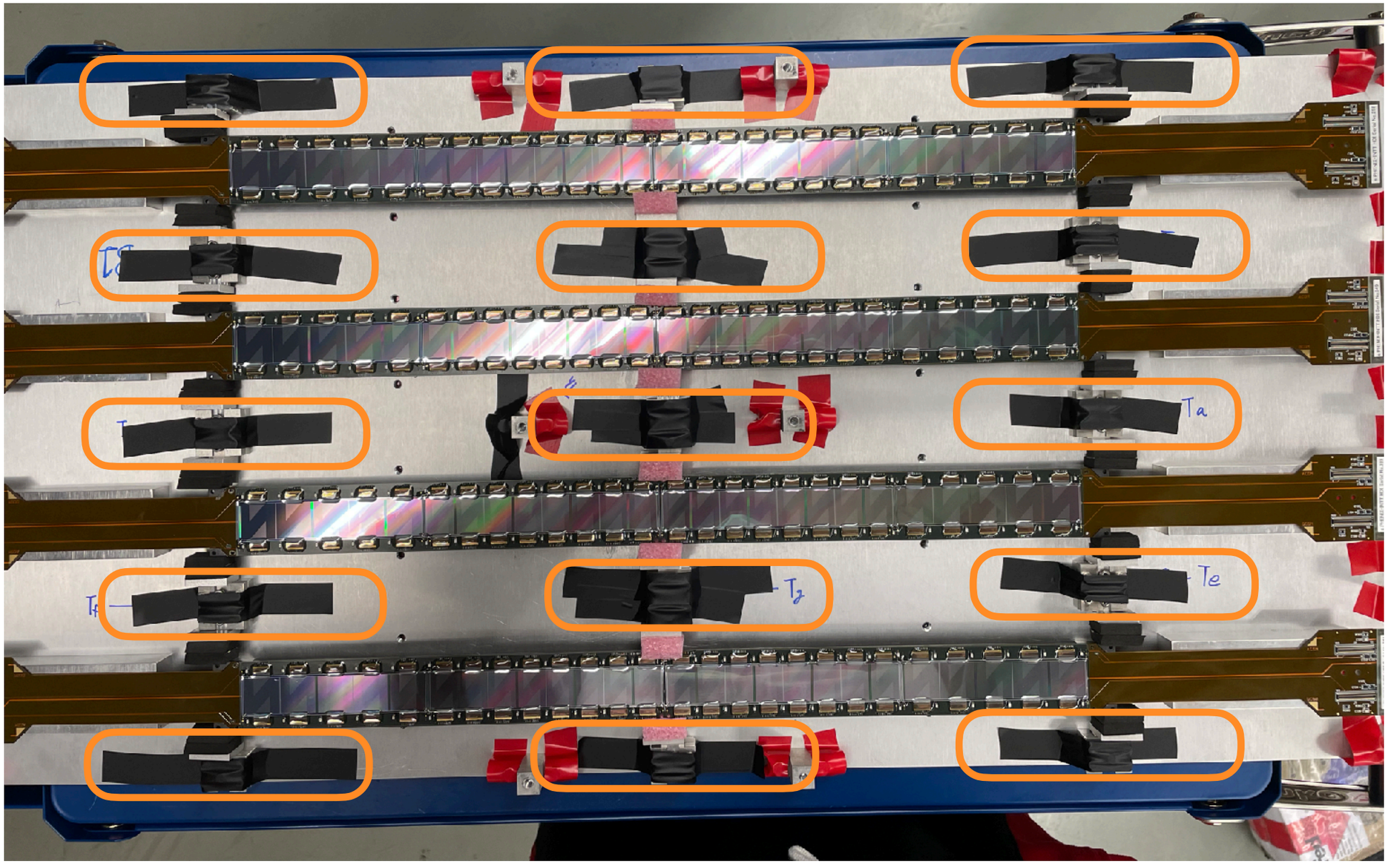
Remove the screws (12 screws)

Procedures to open the box

- Please remove the screws labeled by number (12 screws)
- Please lift the lid perpendicularly to remove the lid

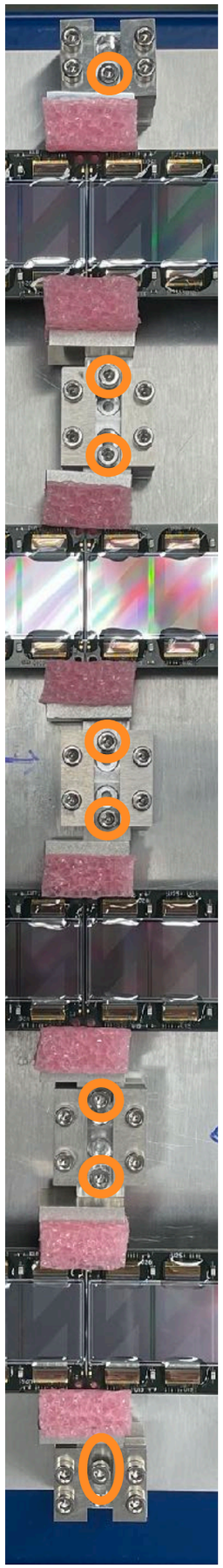


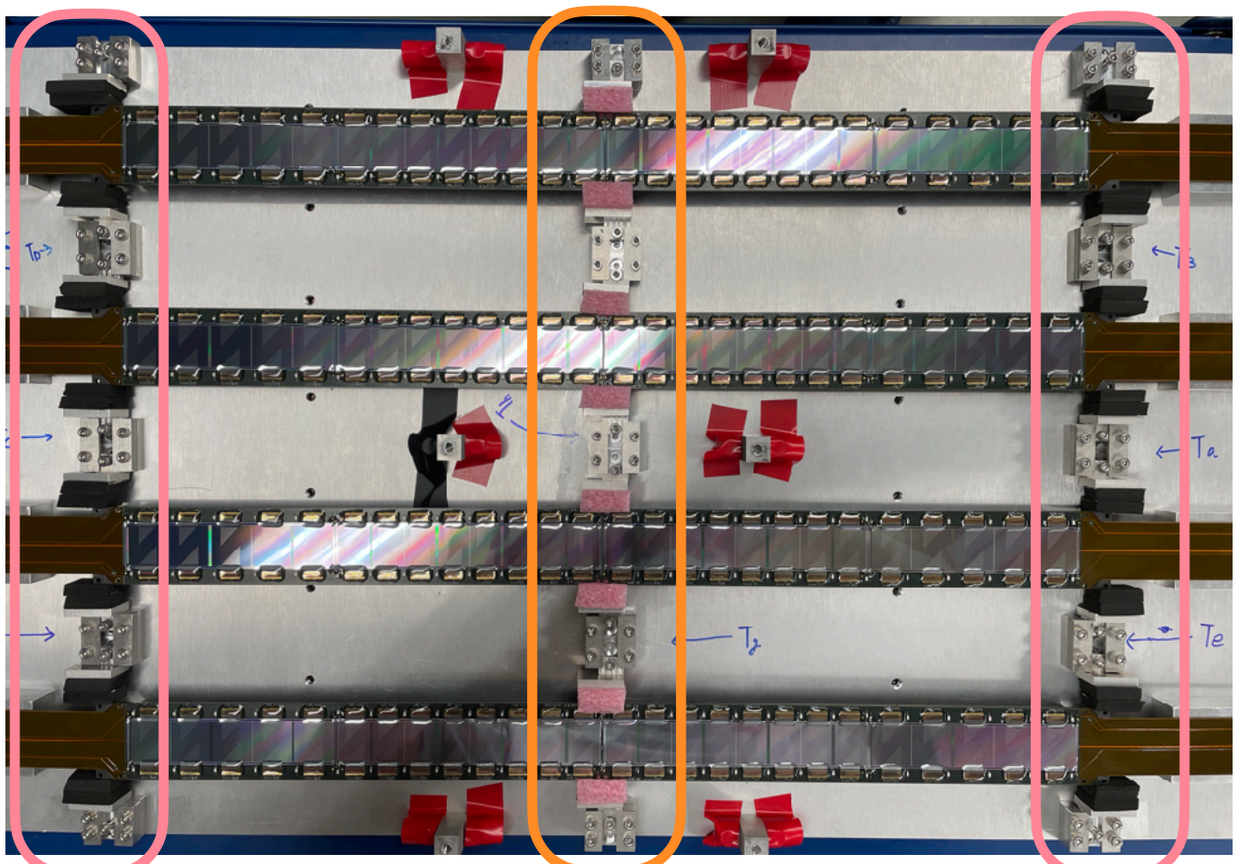
Procedures to open the box

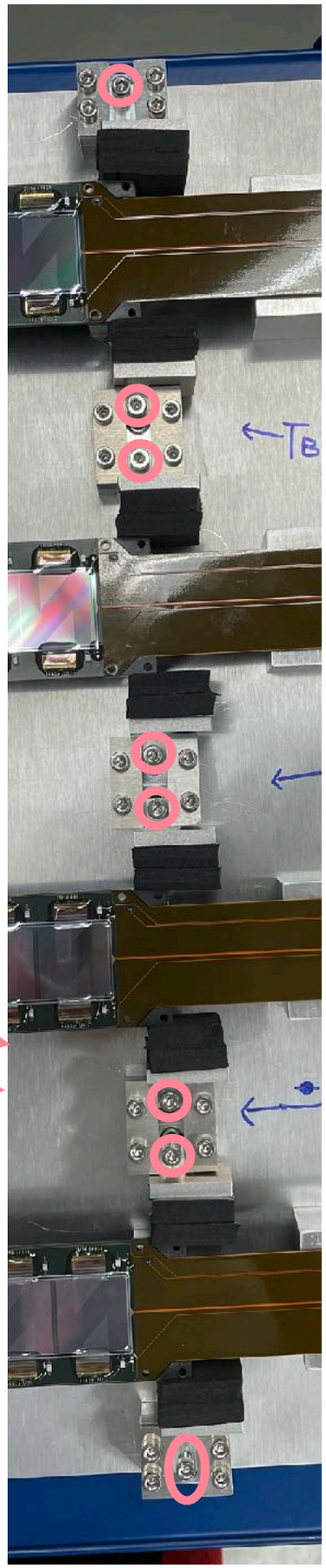


Please remove the black tapes (15 tapes)

Procedures to open the box





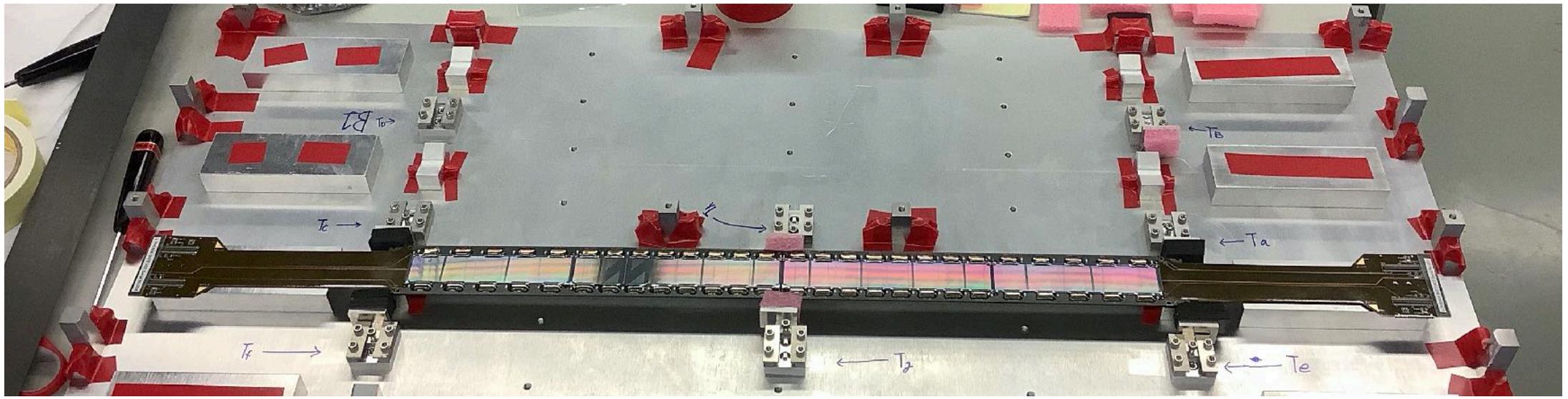


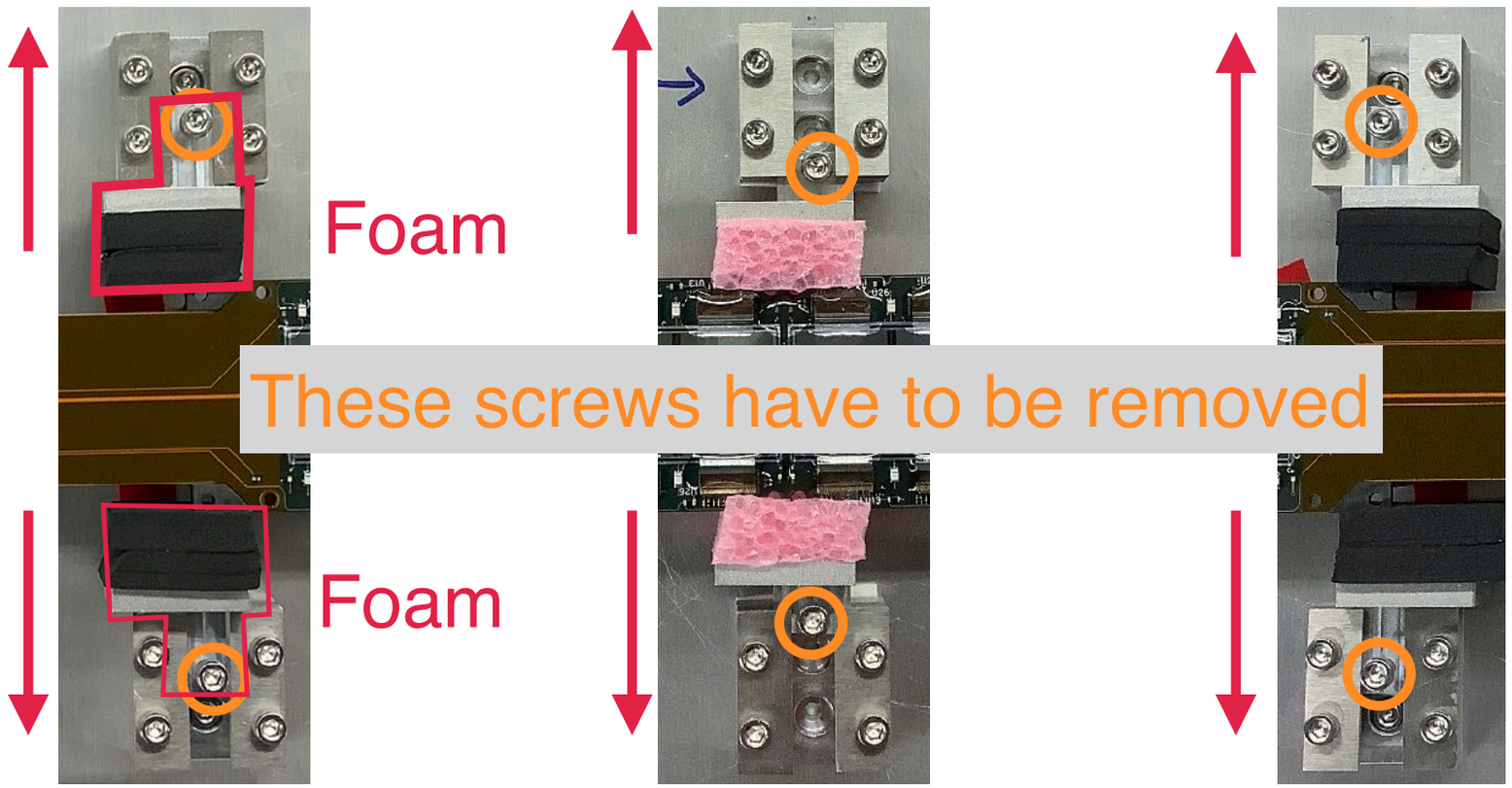
Remove 8 screws each column

(24 screws in total)

Procedures to open the box

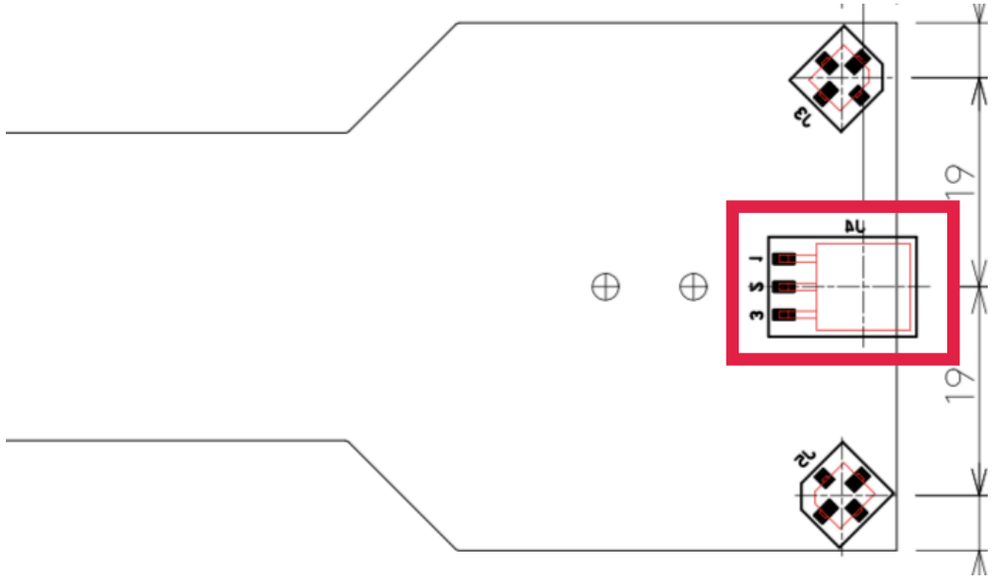
- Please move the foams backward from ladder

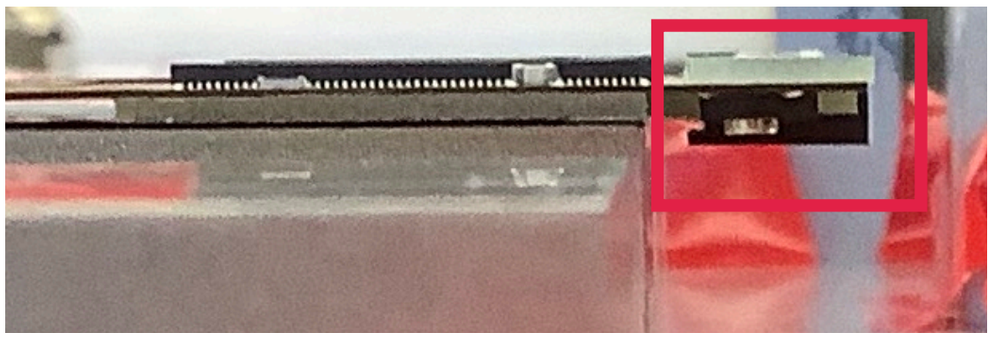




Attention

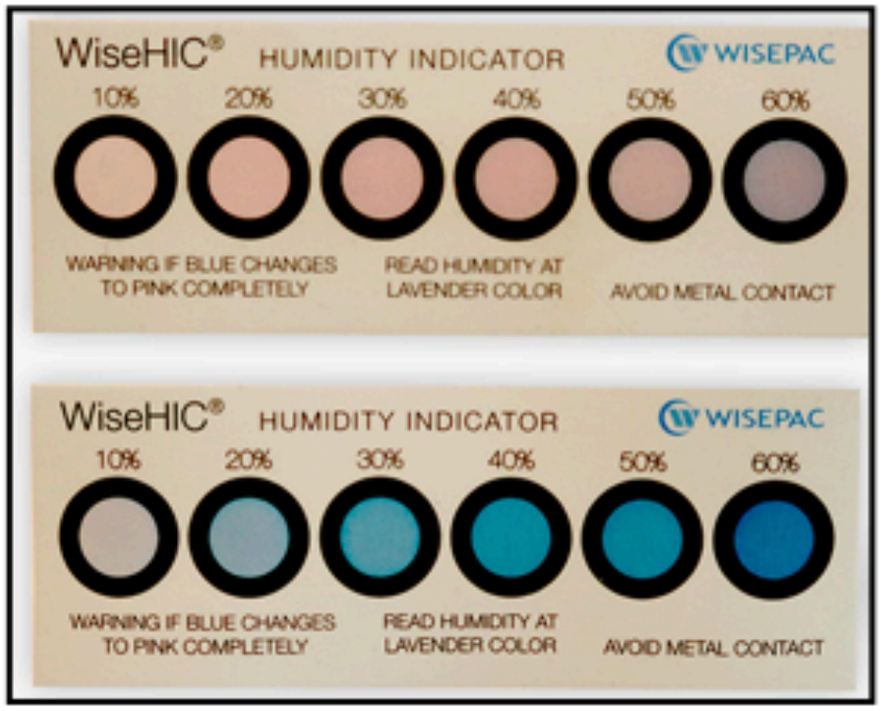
- The 3-pins adapter is outside the fixture.
- You may need to lift the tail of HDI a little bit prior to moving the ladder out from box, to avoid the jamming of the adapter and fixture.





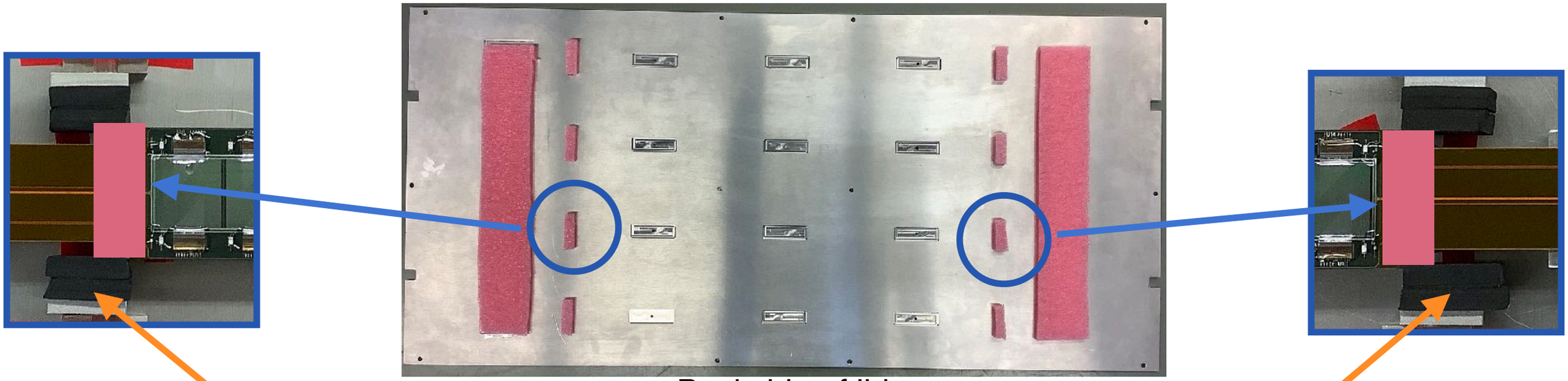
Information

- 2 impact labels + 1 humidity indicator card are with the package.
- For impact label :
  - One is outside the box (25G), two are taped on the lid of the transportation box (15 G and 25 G).
  - If the color of “middle window indicator” is red, it means the package suffered an impact larger than 15 G or 25 G during transportation.
- For humidity sensor card :
  - If the color of the indicator changes to “blue” from “brown”, it means the package has once stayed in the environment with the humidity corresponds to the number at the top of the circle.

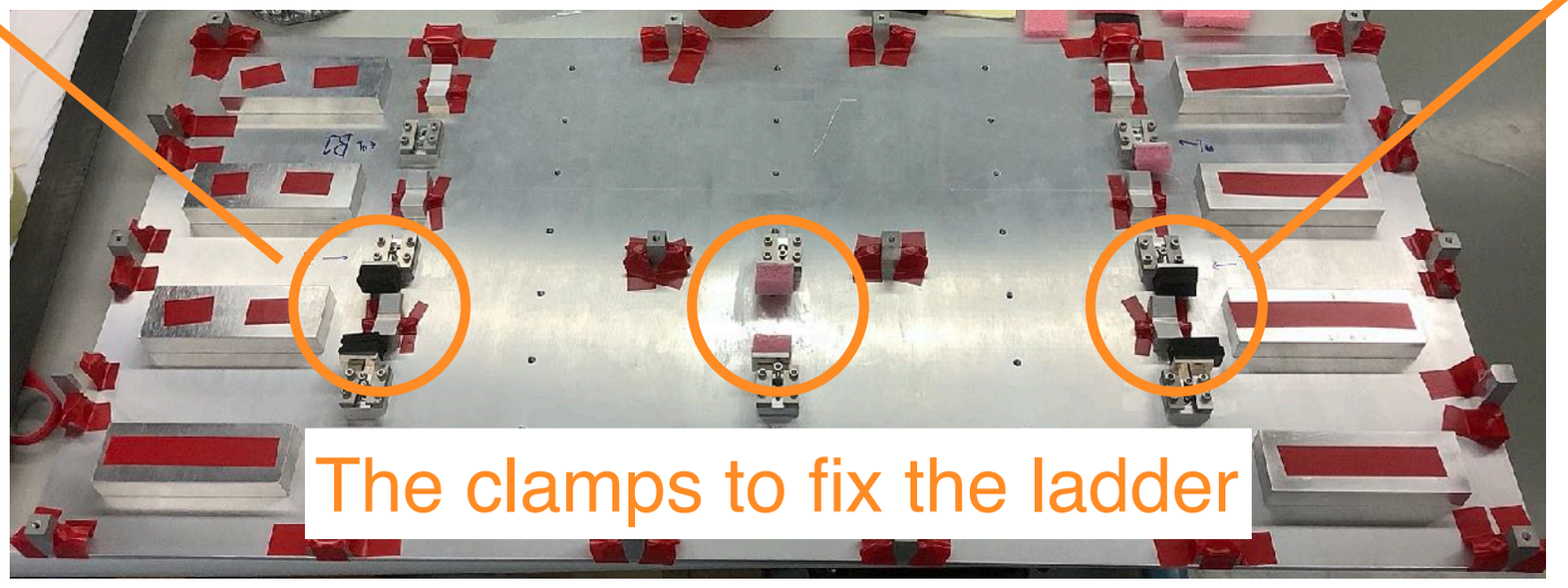


The method to fix the ladder

- The principle is to fix the ladder by foams. The foams apply some pressure to fix the ladder.



Backside of lid



Baseplate

Ladder 02-0062, Assembly date : 2022-01-07

Half-ladder 348, Half-ladder 341, stave 02-0062

Ladder - channel classification

Number of total bad channel :

# of bad channel	percentage	class
0	0.0 %	Class-1

Ladder - bonding

Number of total un-bonded channel :

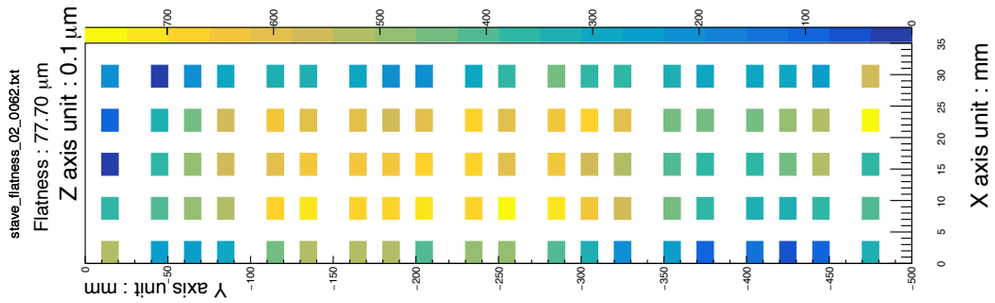
# of un-bonded channel	percentage
0	0.0 %

NOTE

Nothing

Stave - 02-0062

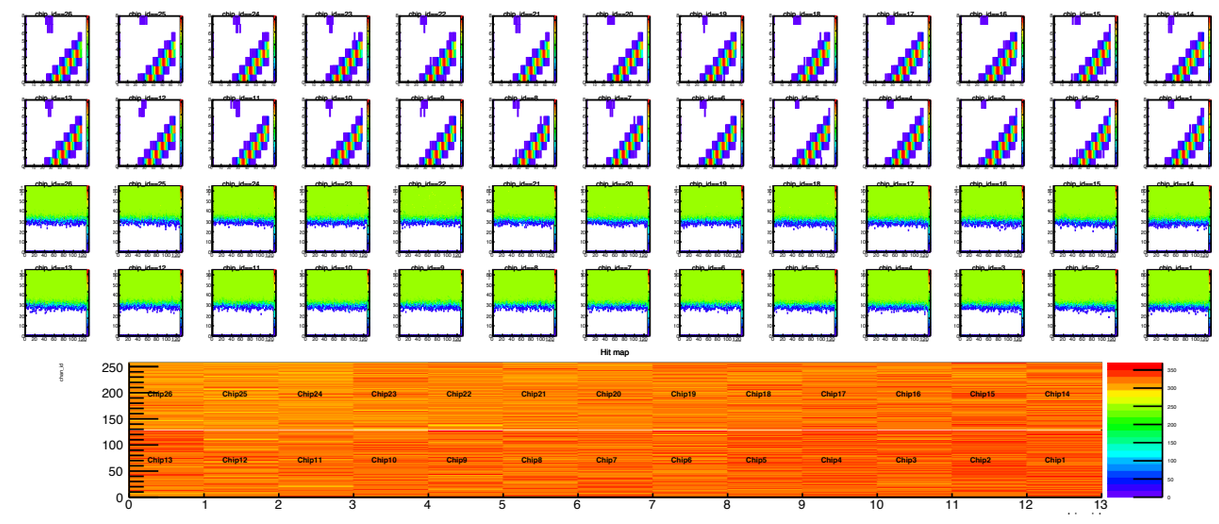
| torque : passed | leakage : 0.037 psi | flow : 0.837 psi | flatness : 77.7 μm |



Half-ladder (N) : 348 | Current : 0.534 A (chip), 0.12 uA (sensor)

of bad channel : 0
Nothing

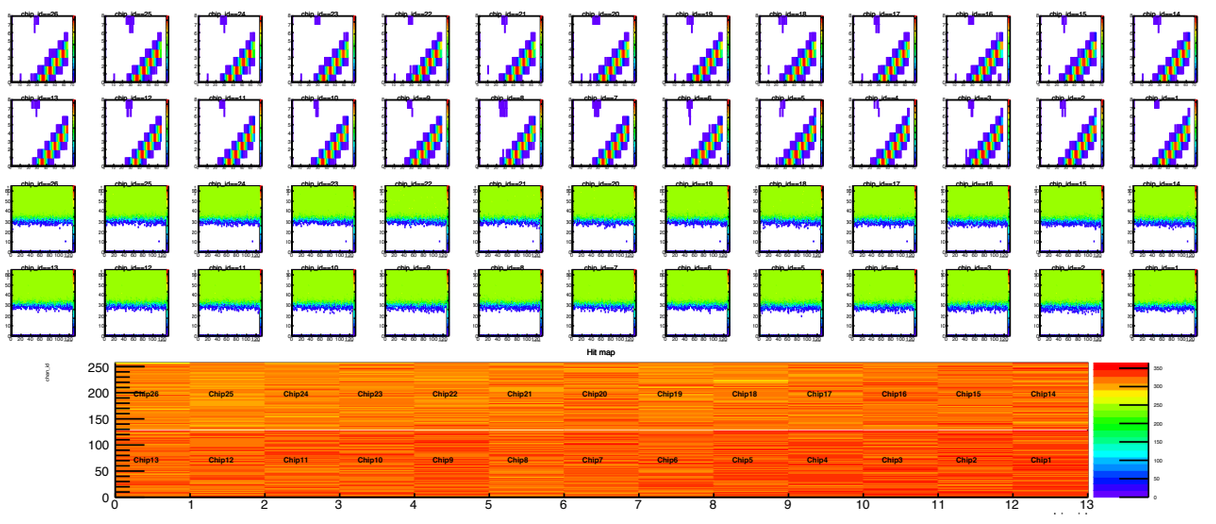
# of un-bonded channel : 0
Nothing



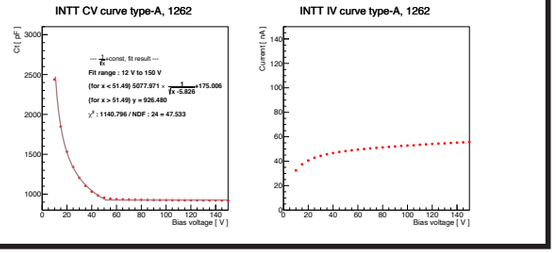
Half-ladder (S) : 341 | Current : 0.532 A (chip), 0.12 uA (sensor)

of bad channel : 0
Nothing

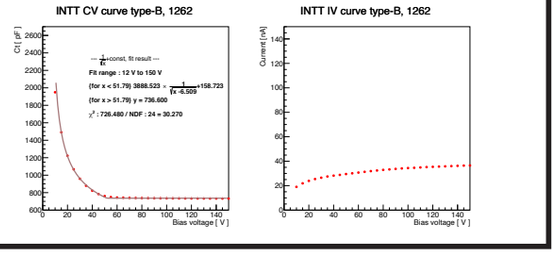
# of un-bonded channel : 0
Nothing



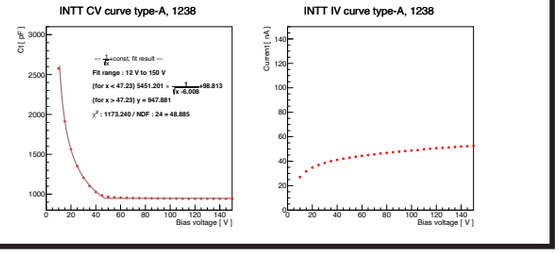
Sensor 1262 (N,A)



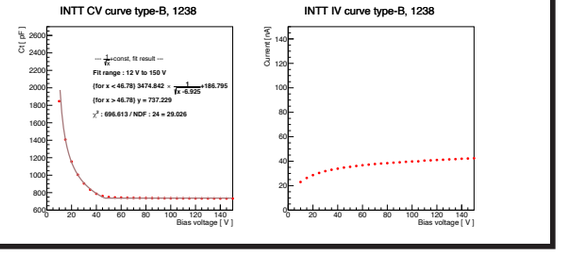
Sensor 1262 (N,B)



Sensor 1238 (S,A)



Sensor 1238 (S,B)



Ladder 02-0056, Assembly date : 2021-12-30

Half-ladder 267, Half-ladder 333, stave 02-0056

Ladder - channel classification

Number of total bad channel :

# of bad channel	percentage	class
2	0.0 %	Class-1

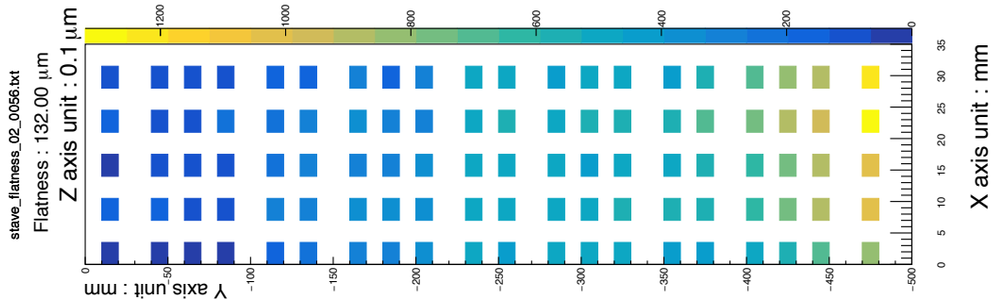
Ladder - bonding

Number of total un-bonded channel :

# of un-bonded channel	percentage
0	0.0 %

Stave - 02-0056

| torque : passed | leakage : 0.039 psi | flow : 0.845 psi | flatness : 132 μm |



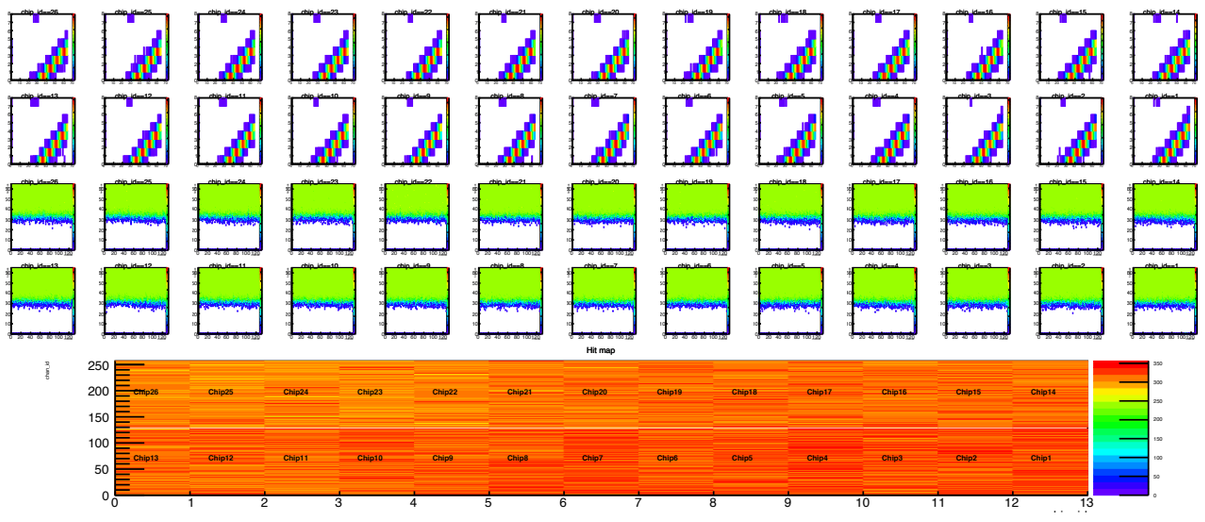
NOTE

Nothing

Half-ladder (N) : 267 | Current : 0.522 A (chip), 0.1 uA (sensor)

of bad channel : 1
U25-43

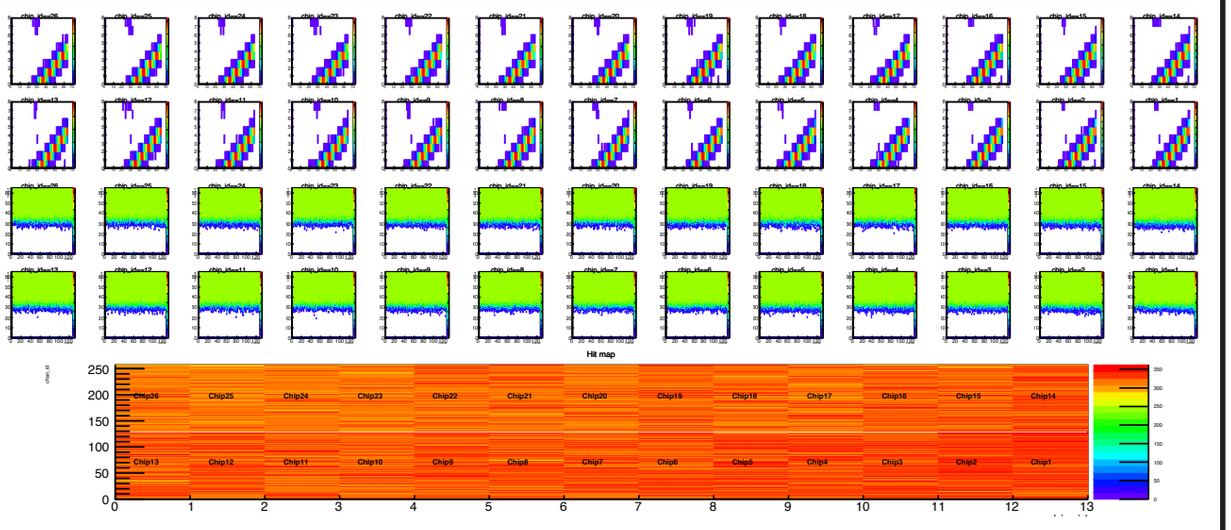
# of un-bonded channel : 0
Nothing



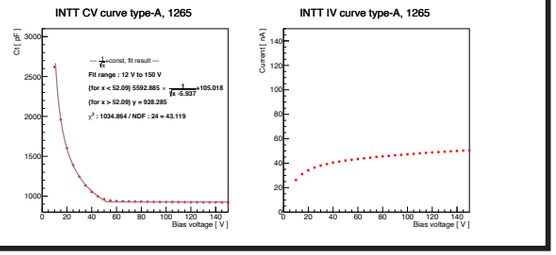
Half-ladder (S) : 333 | Current : 0.522 A (chip), 0.15 uA (sensor)

of bad channel : 1
U18-99

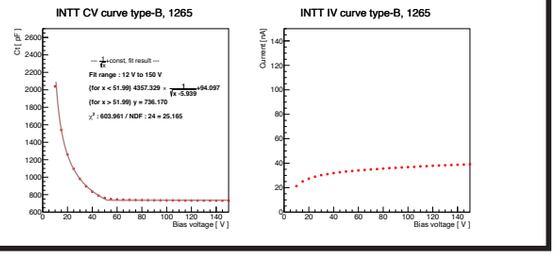
# of un-bonded channel : 0
Nothing



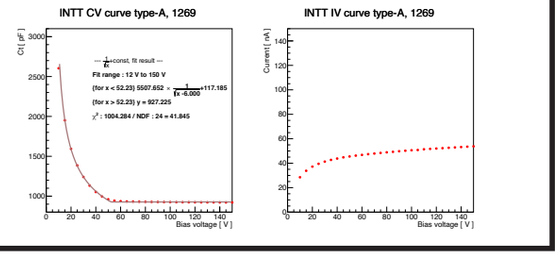
Sensor 1265 (N,A)



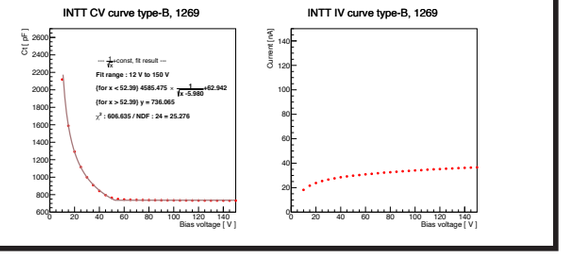
Sensor 1265 (N,B)



Sensor 1269 (S,A)



Sensor 1269 (S,B)



Ladder 02-0065, Assembly date : 2022-01-06

Half-ladder 349, Half-ladder 345, stave 02-0065

Ladder - channel classification

Number of total bad channel :

# of bad channel	percentage	class
0	0.0 %	Class-1

Ladder - bonding

Number of total un-bonded channel :

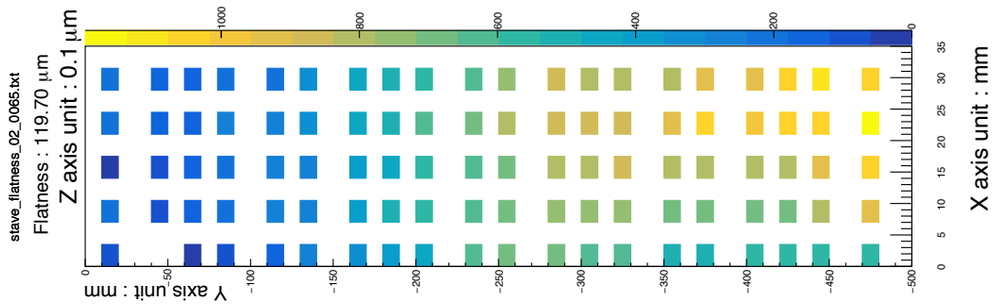
# of un-bonded channel	percentage
0	0.0 %

NOTE

Nothing

Stave - 02-0065

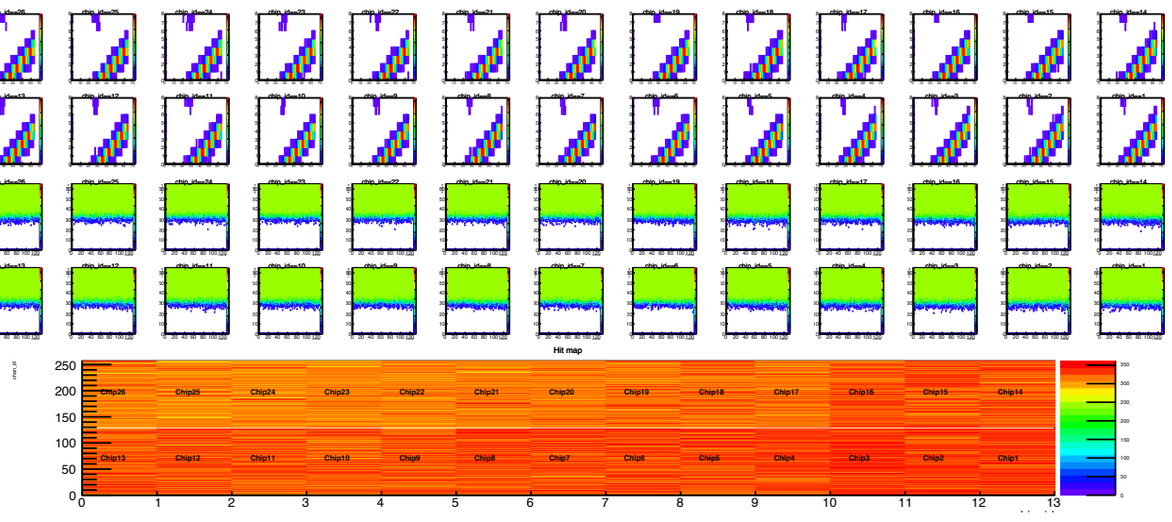
| torque : passed | leakage : 0.027 psi | flow : 0.9879 psi | flatness : 119.7 μm |



Half-ladder (N) : 349 | Current : 0.529 A (chip), 0.1 uA (sensor)

of bad channel : 0
Nothing

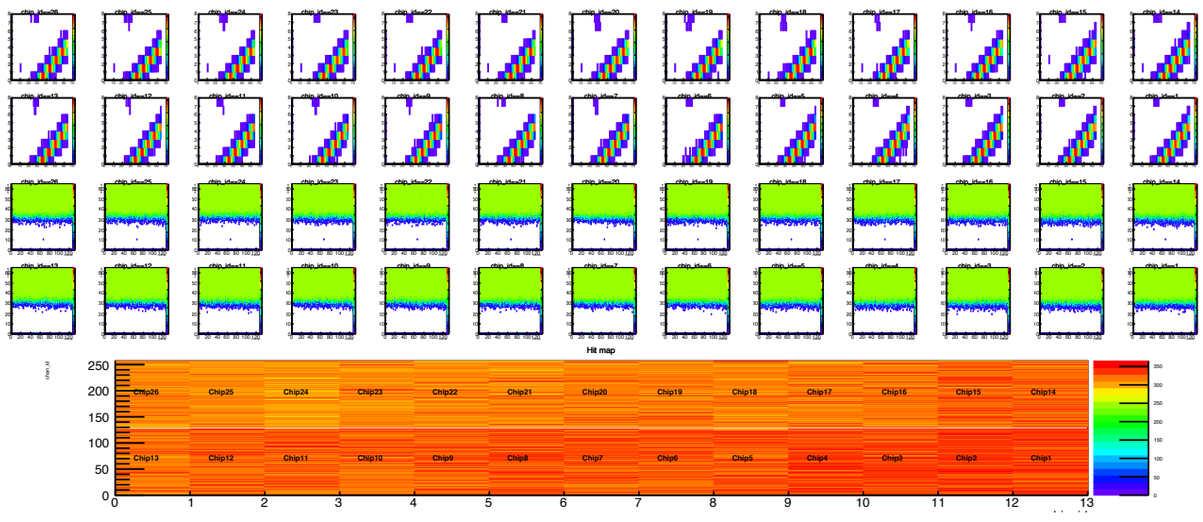
# of un-bonded channel : 0
Nothing



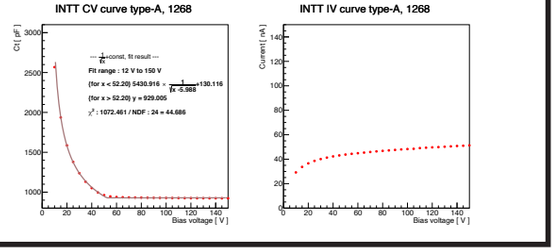
Half-ladder (S) : 345 | Current : 0.525 A (chip), 0.15 uA (sensor)

of bad channel : 0
Nothing

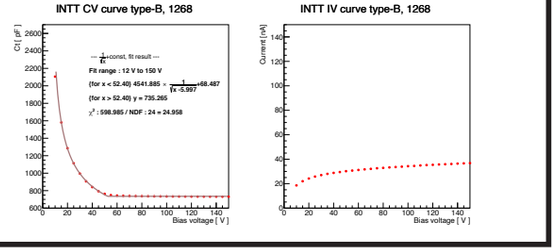
# of un-bonded channel : 0
Nothing



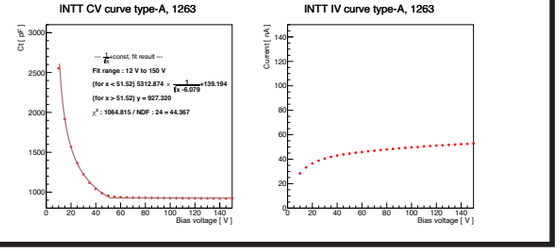
Sensor 1268 (N,A)



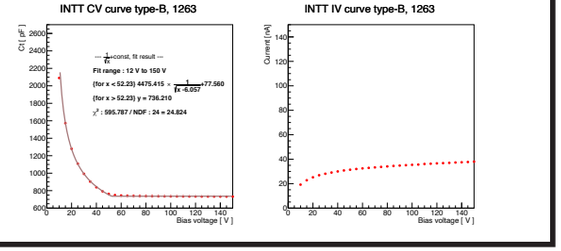
Sensor 1268 (N,B)



Sensor 1263 (S,A)



Sensor 1263 (S,B)



Ladder 02-0080, Assembly date : 2021-9-9

Half-ladder 24, Half-ladder 258, stave 02-0080

Ladder - channel classification

Number of total bad channel :

# of bad channel	percentage	class
4	0.1 %	Class-1

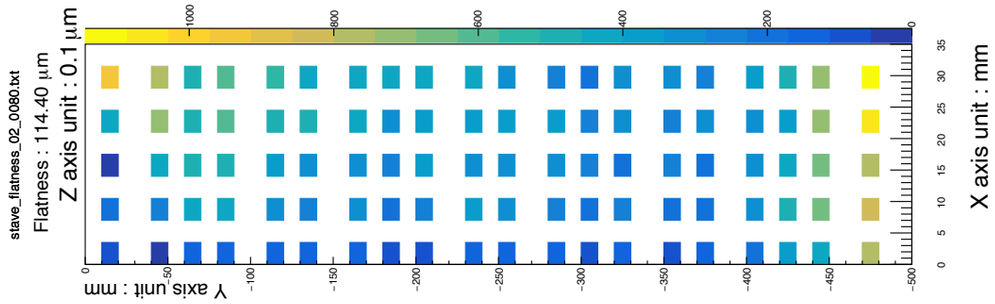
Ladder - bonding

Number of total un-bonded channel :

# of un-bonded channel	percentage
4	0.1 %

Stave - 02-0080

| torque : passed | leakage : 0.033 psi | flow : 0.069 psi | flatness : 114.4 μm |



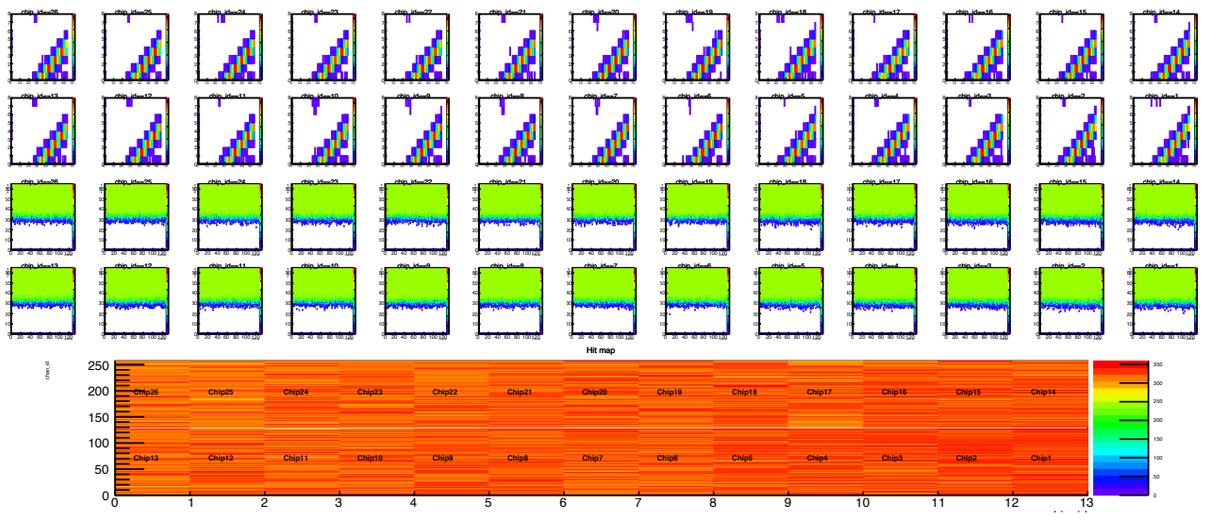
NOTE

Nothing

Half-ladder (N) : 24 | Current : 0.47 A (chip), 0.15 uA (sensor)

of bad channel : 0
Nothing

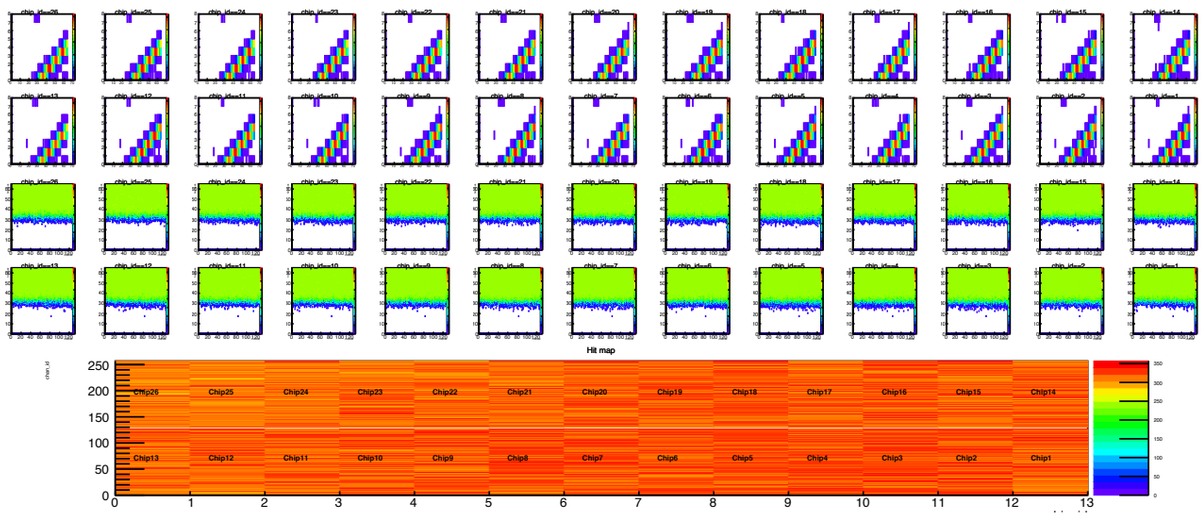
# of un-bonded channel : 0
Nothing



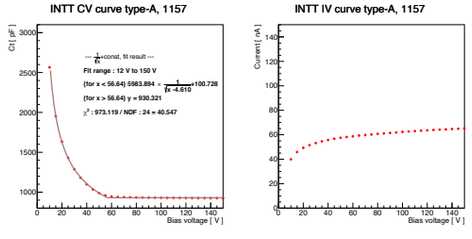
Half-ladder (S) : 258 | Current : 0.467 A (chip), 0.2 uA (sensor)

of bad channel : 4
U13-104, U14-96, U14-98, U16-28

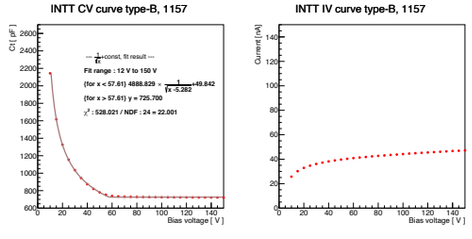
# of un-bonded channel : 4
U13-104, U14-96, U14-98, U16-28



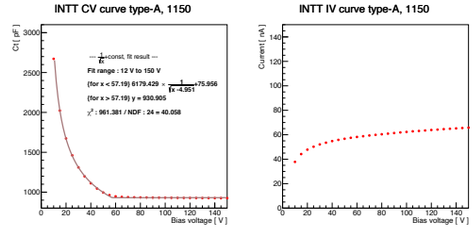
Sensor 1157 (N,A)



Sensor 1157 (N,B)



Sensor 1150 (S,A)



Sensor 1150 (S,B)