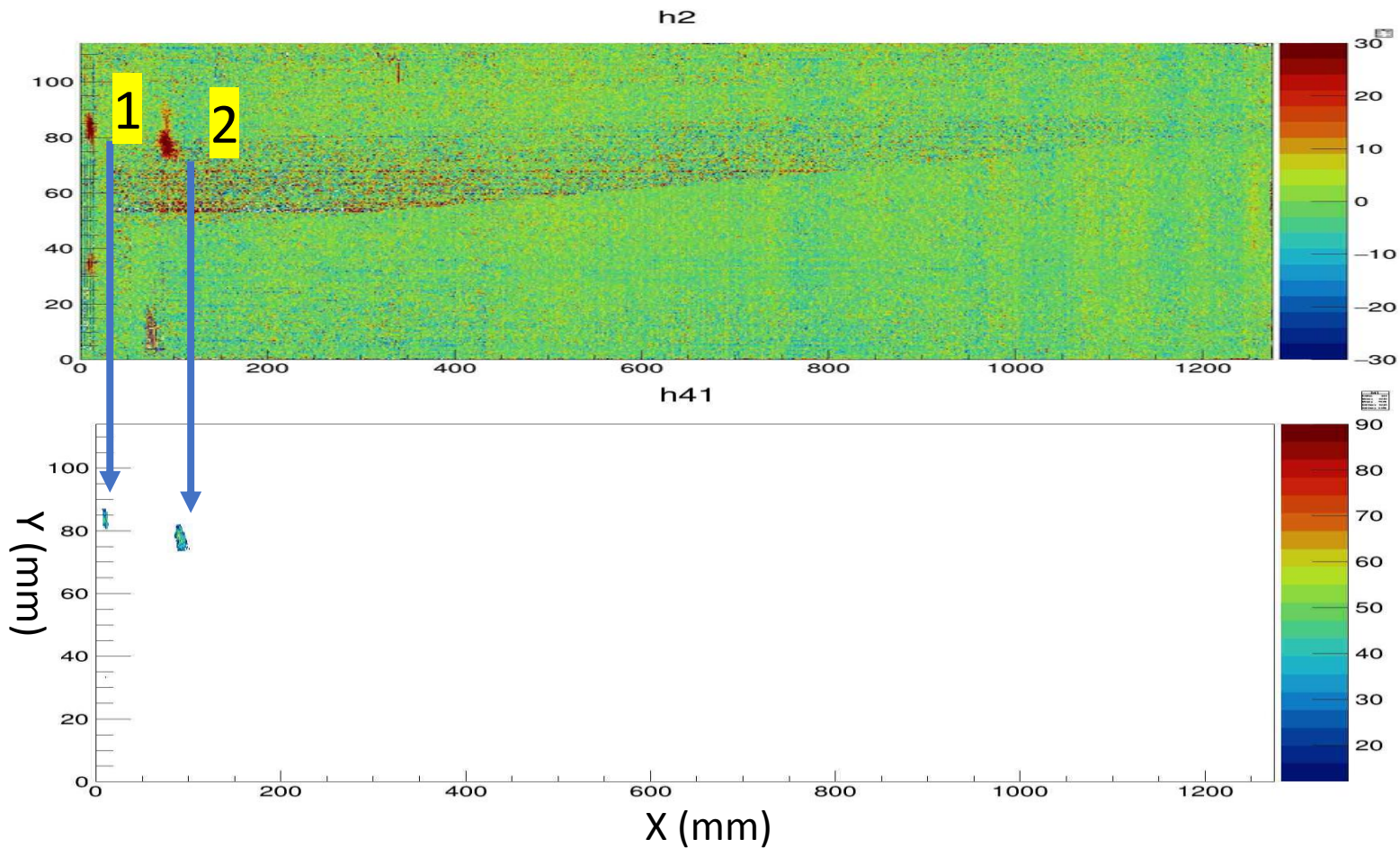


Stave 6 local flatness  
&  
Stave 7 Pressure Test

Boping/Shuaiyan  
2018/05/15

# Apply defect finding code L side



defect width ( larger than 36  
um = 3 RMS):

Defect1

X axis: 4mm

Y axis: 5mm

Maximum height: 54um

Defect2

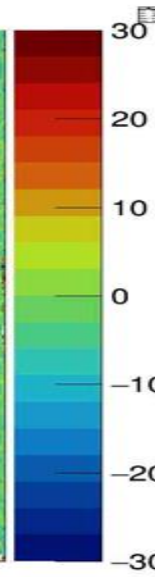
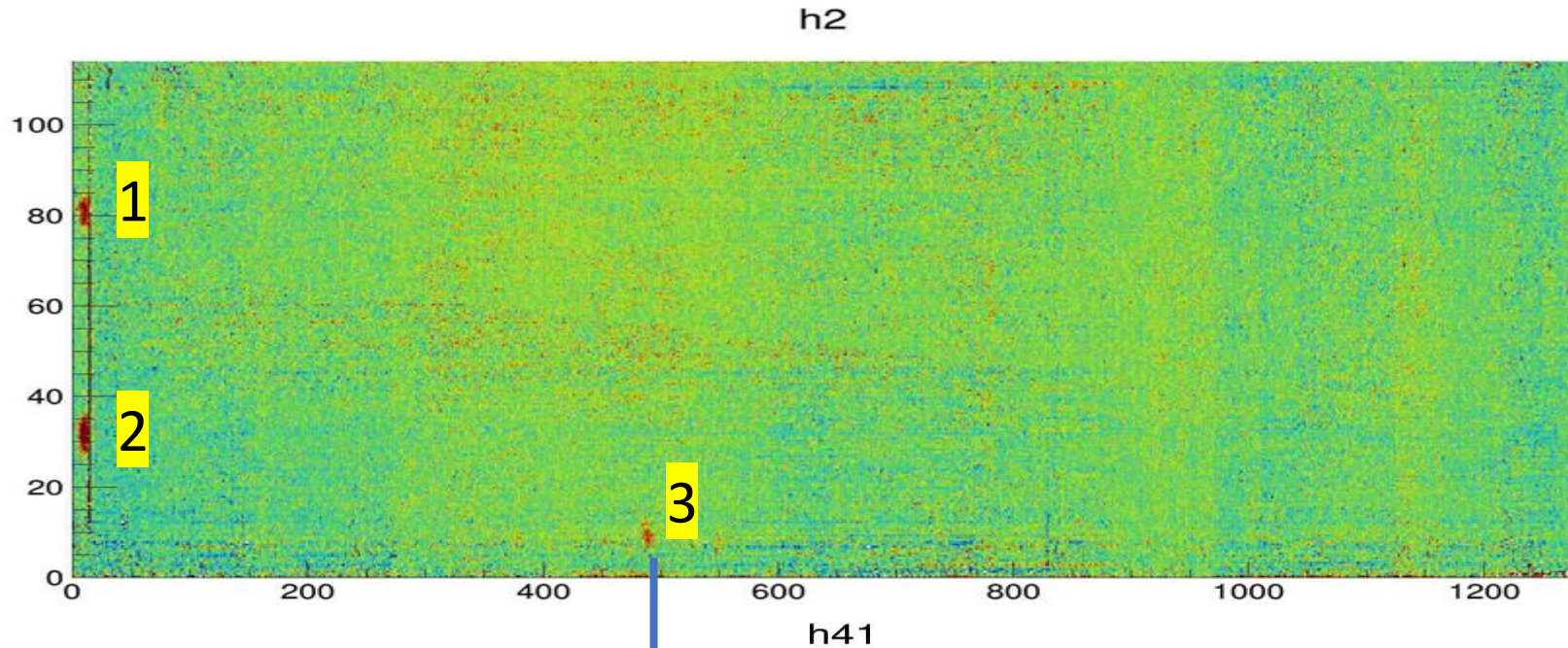
X axis: 13mm

Y axis: 7mm

Maximum height: 60um

Maximum height is the  
difference between scanned  
value and fitted value  
2<sup>nd</sup> Order Polynomial Fit

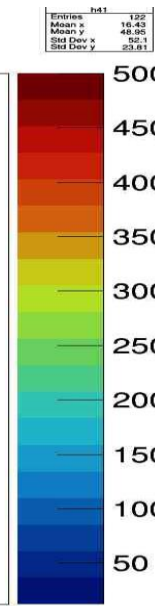
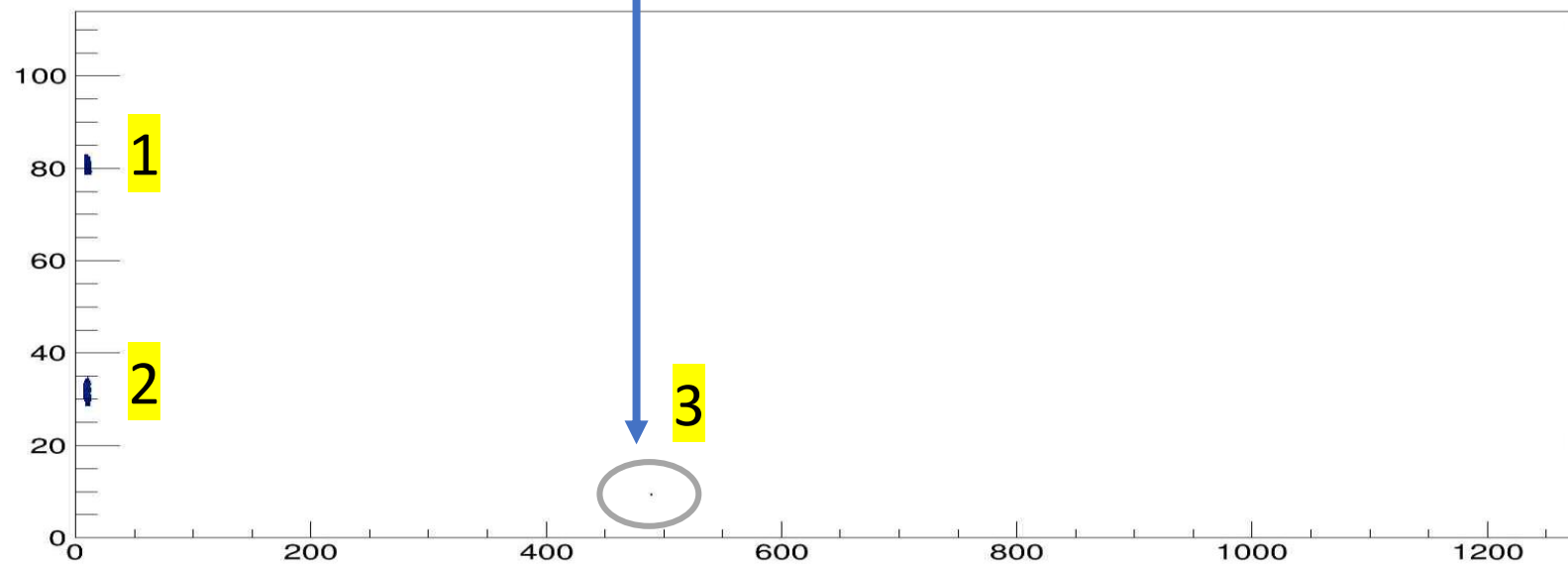
# Apply defect finding code J side



defect width ( larger than 36 um = 3 RMS):

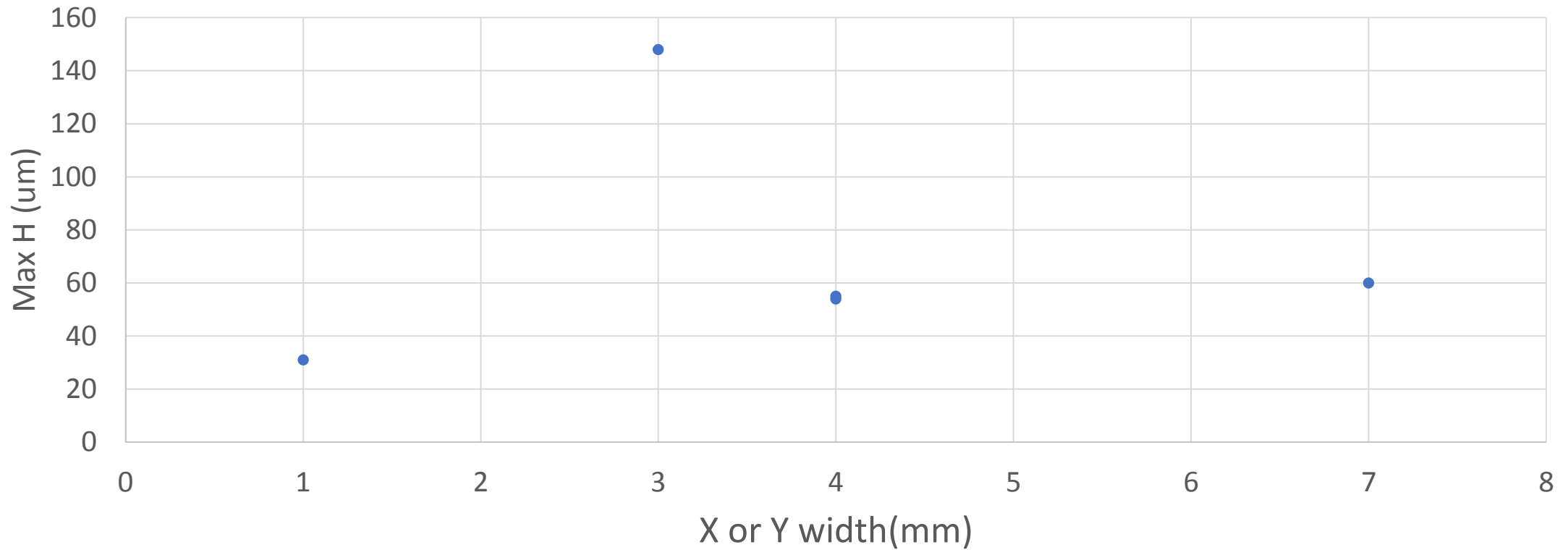
Defect1  
X axis:4 Y axis: 3mm  
Max: 148um

Defect2  
X axis: 6 Y axis: 4mm  
Max: 55um



Defect 3  
defect width lager than 2 RMS  
X axis 1mm  
Max: 31um

Maximum Height vs Minimum X or Y defect width

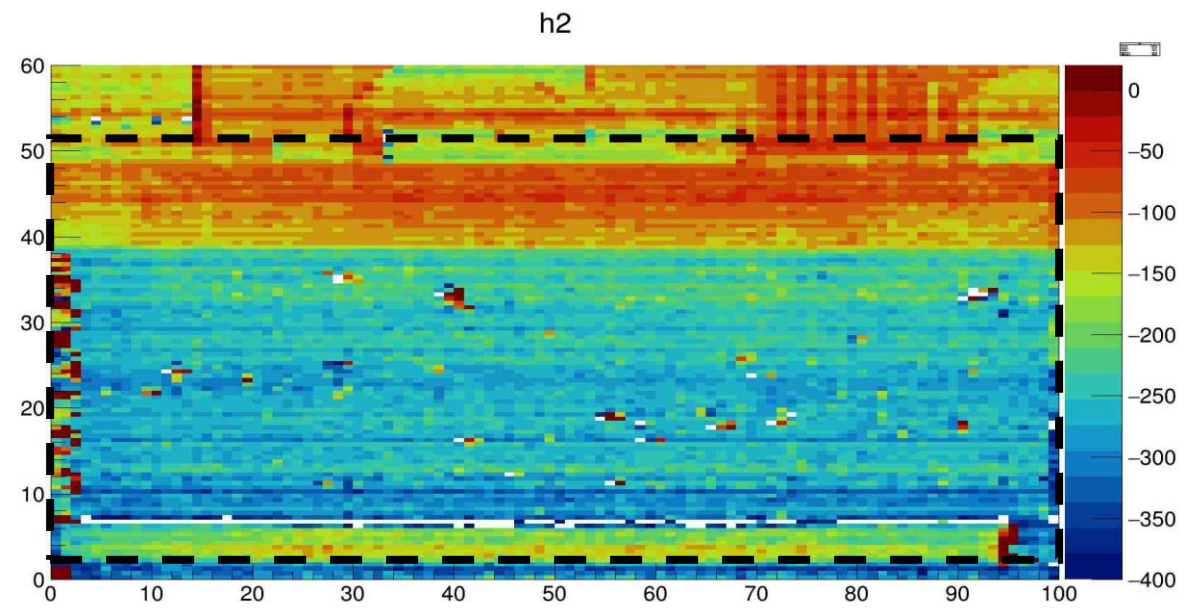
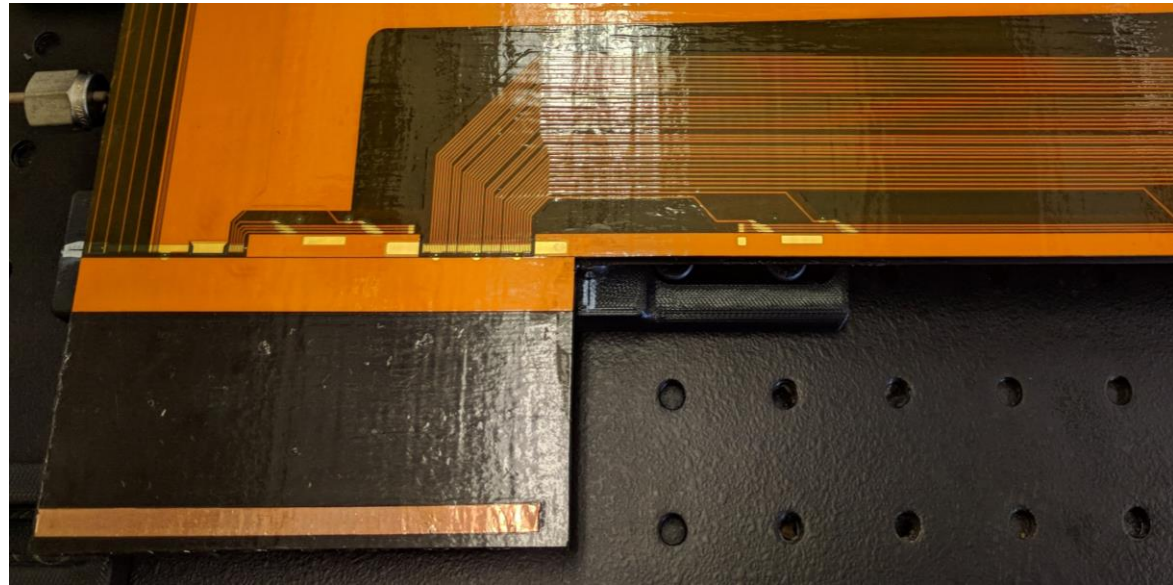


The maximum height and Minimum X or Y width are more or less linear related

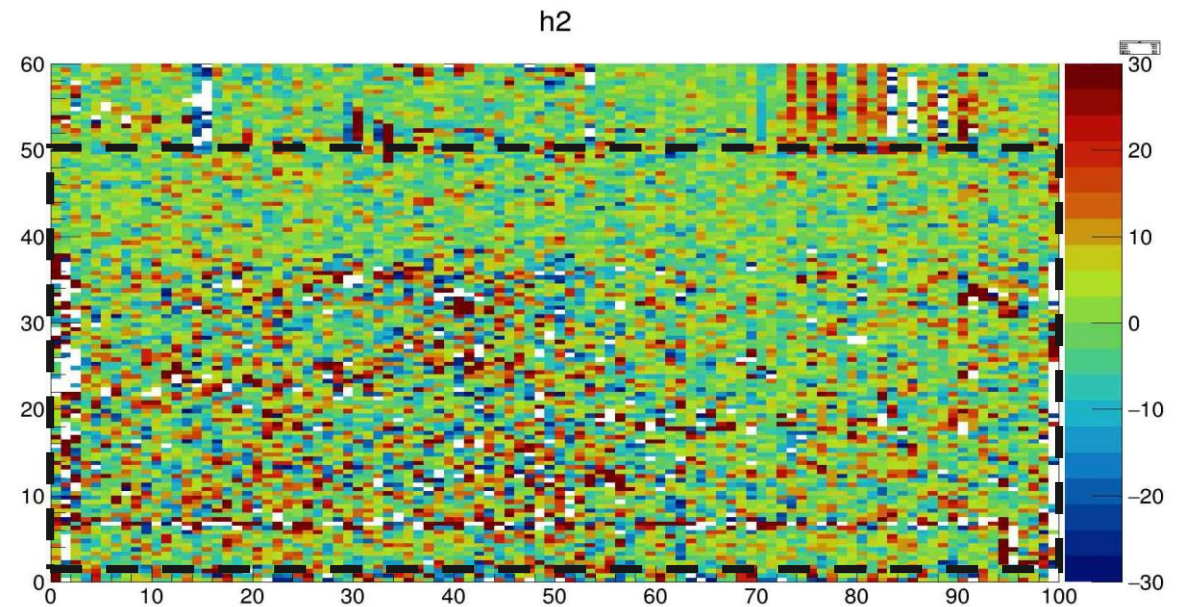


# Stave 7 end of stave card

- Scanned 10 times separately for 5 and 0 psi



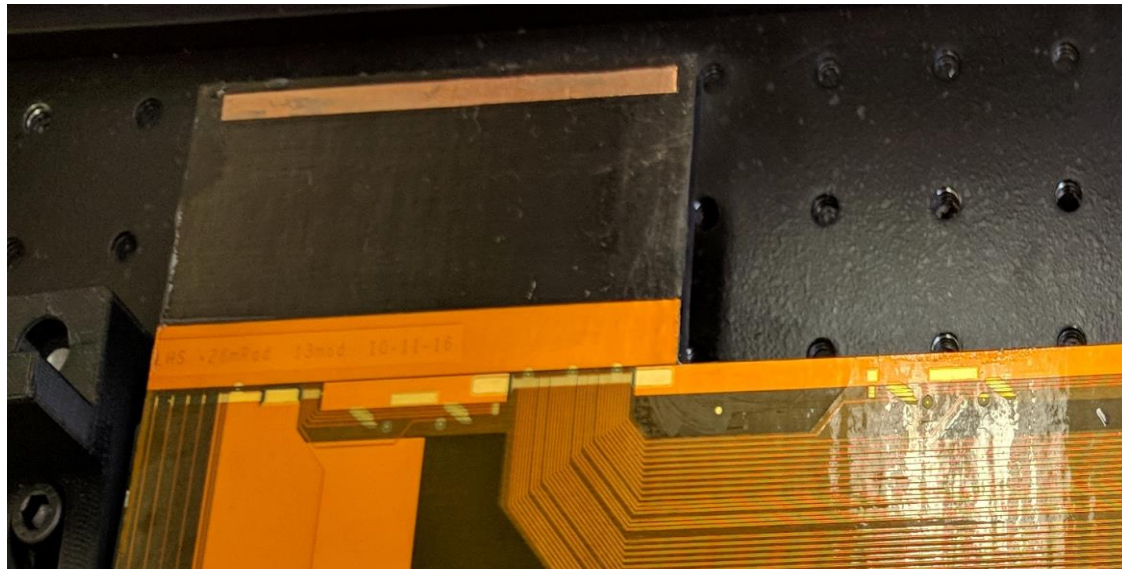
L 0 psi



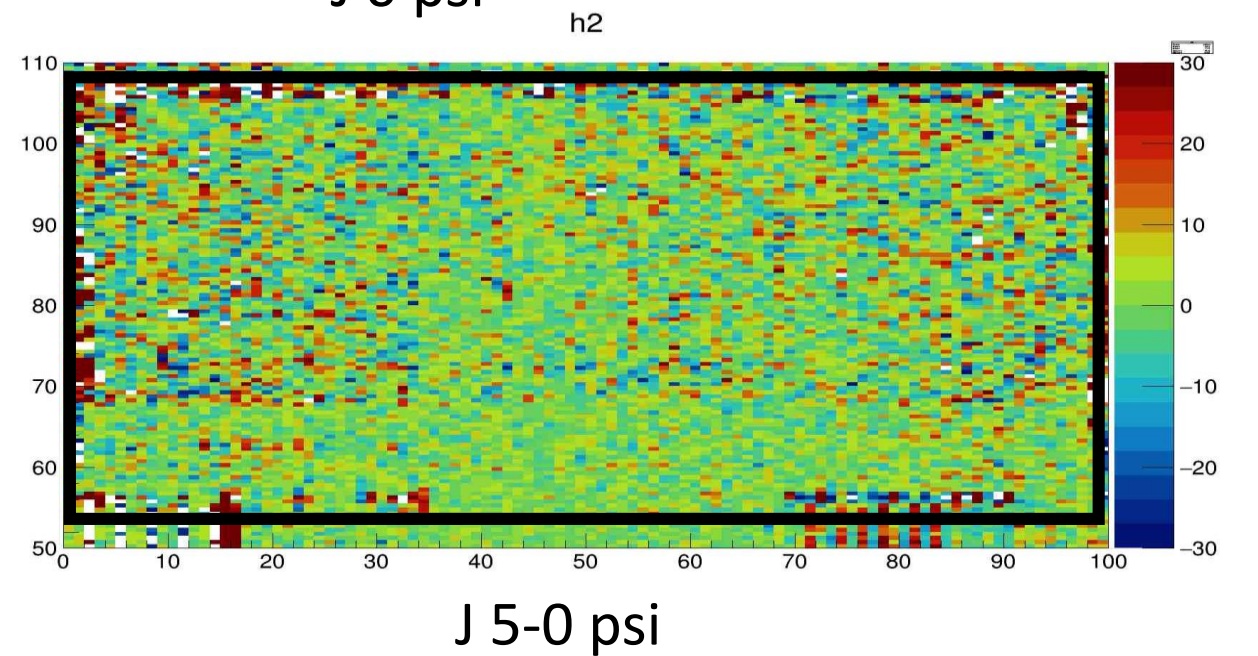
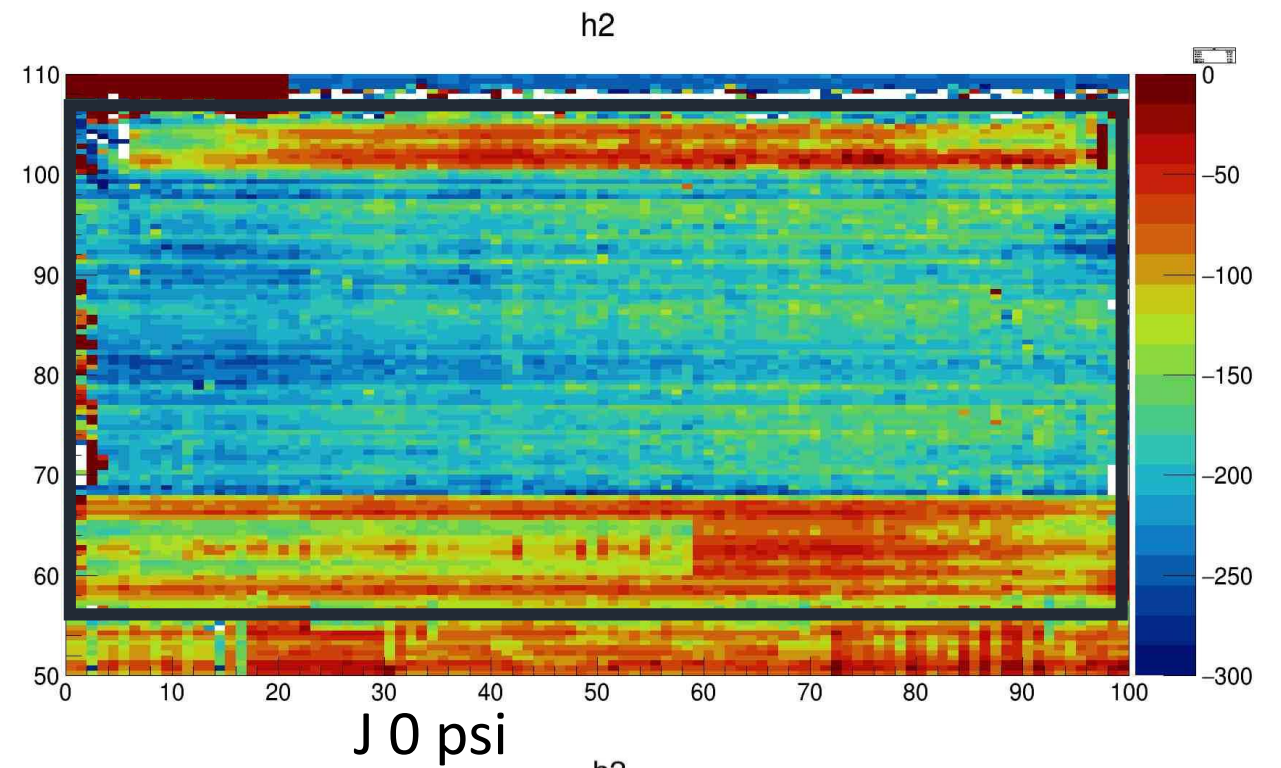
L 5-0 psi



# Stave 7 end of stave card

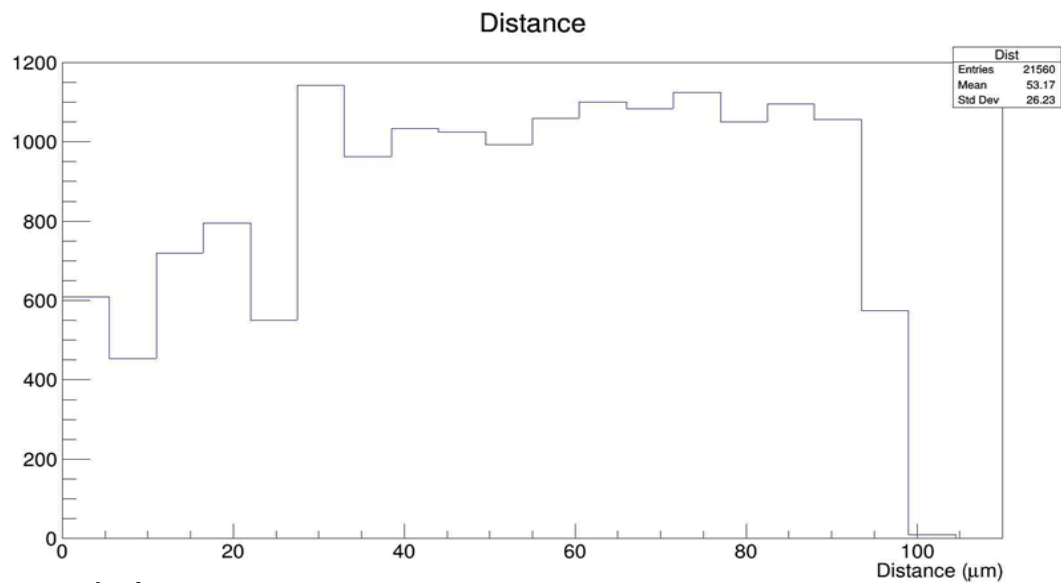


Defect finder did not find any defect for both sides

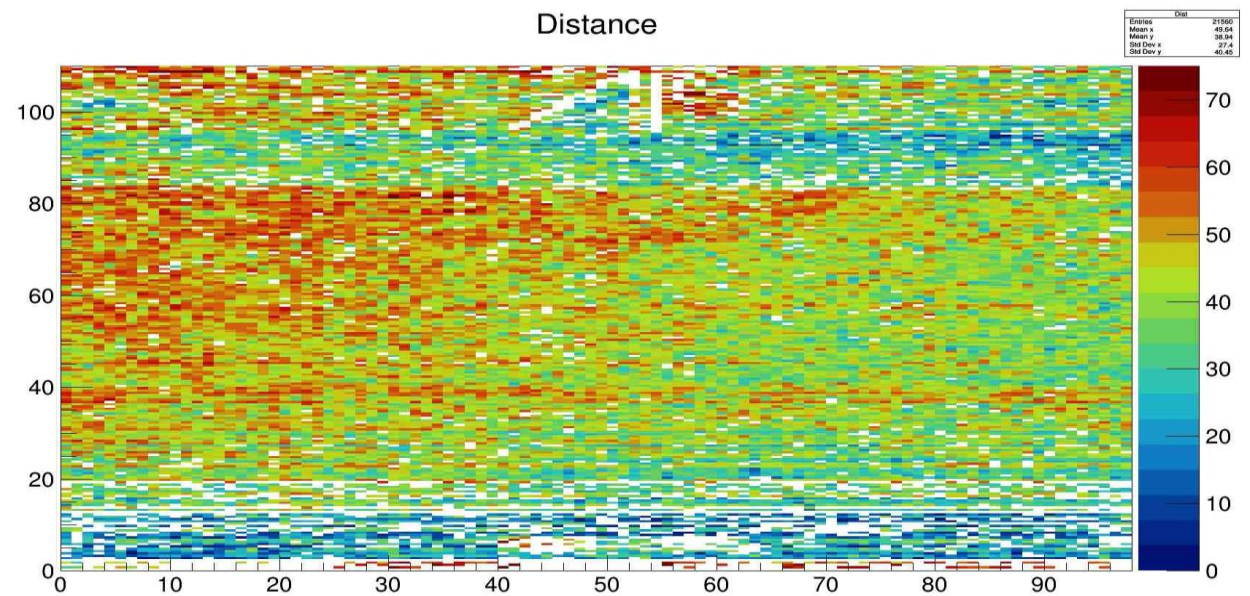
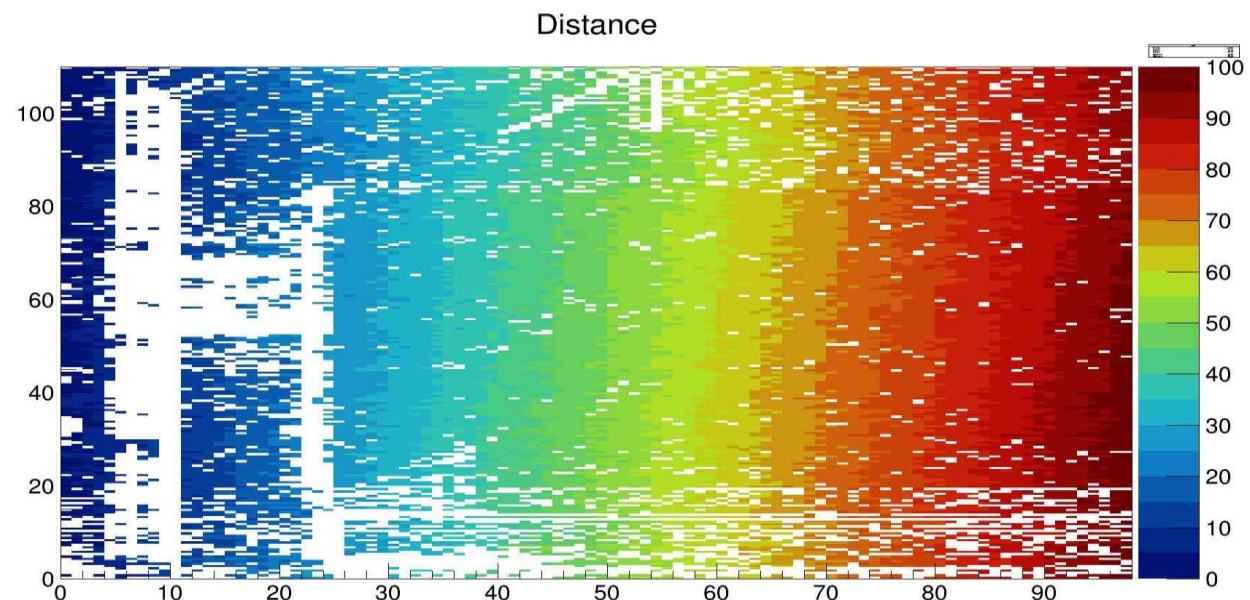
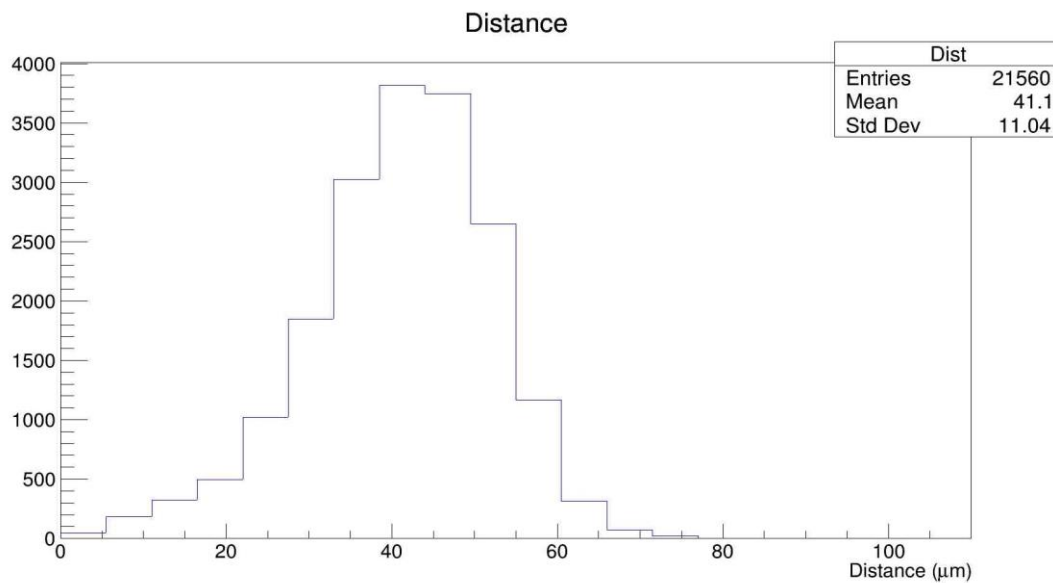




# Stave 6 local flatness

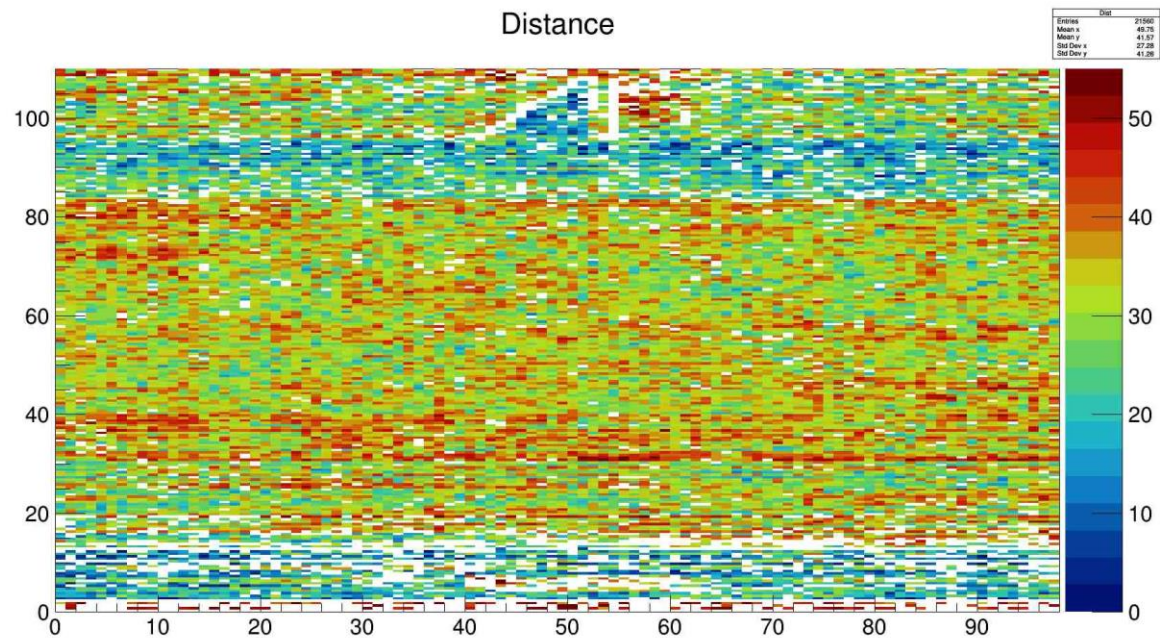
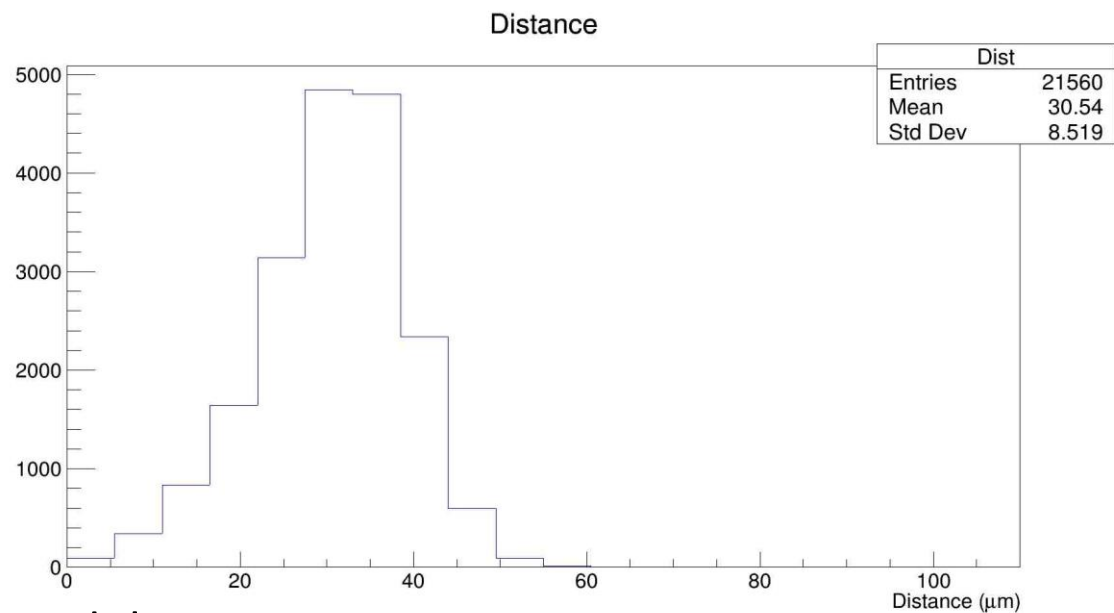


Module 1,2

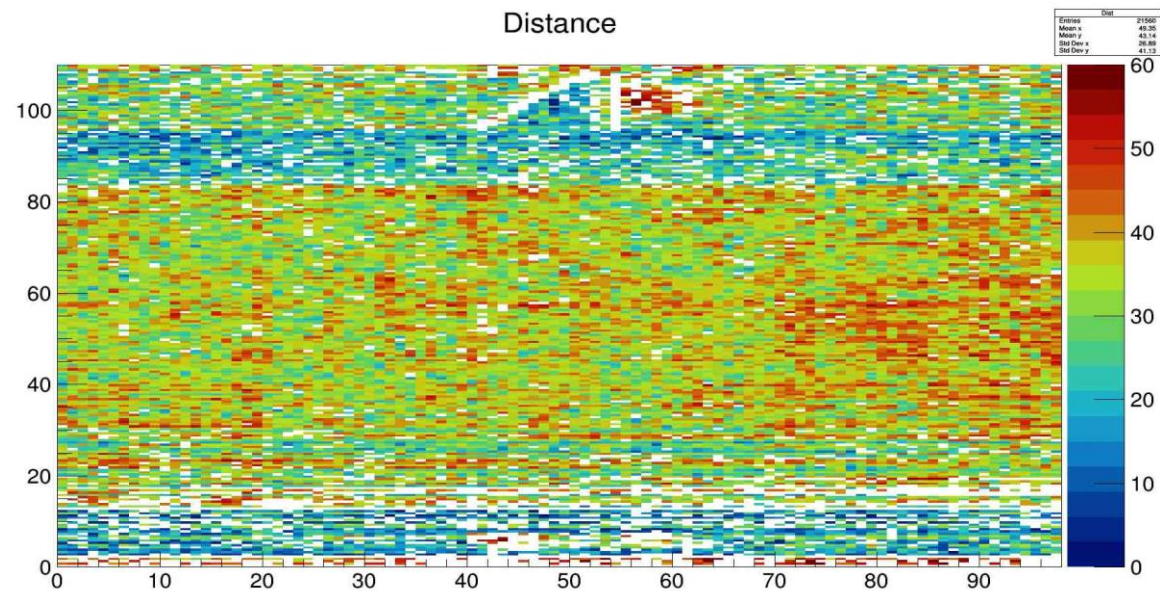
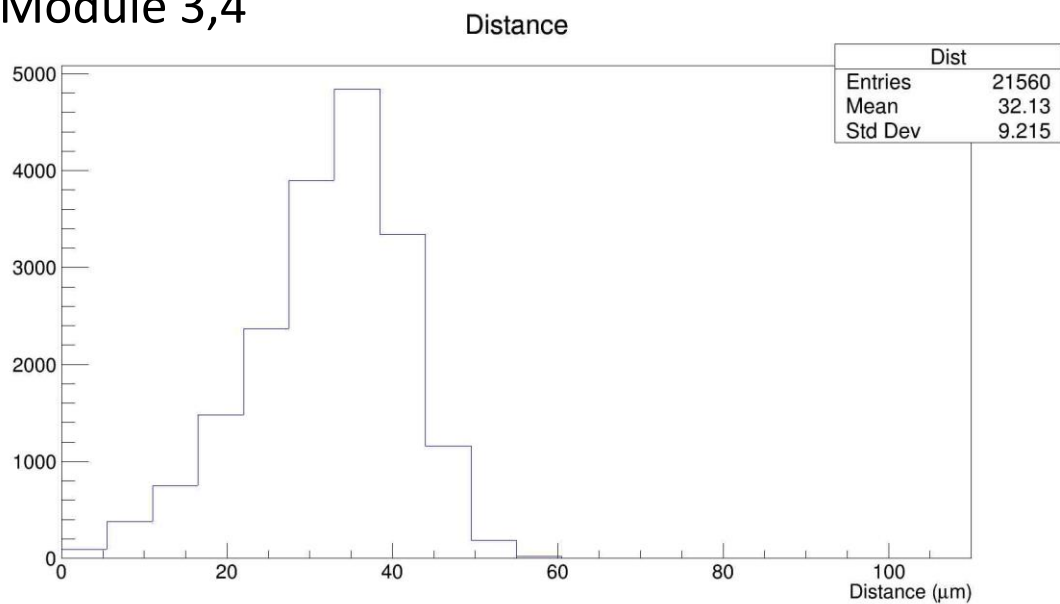




# Continue

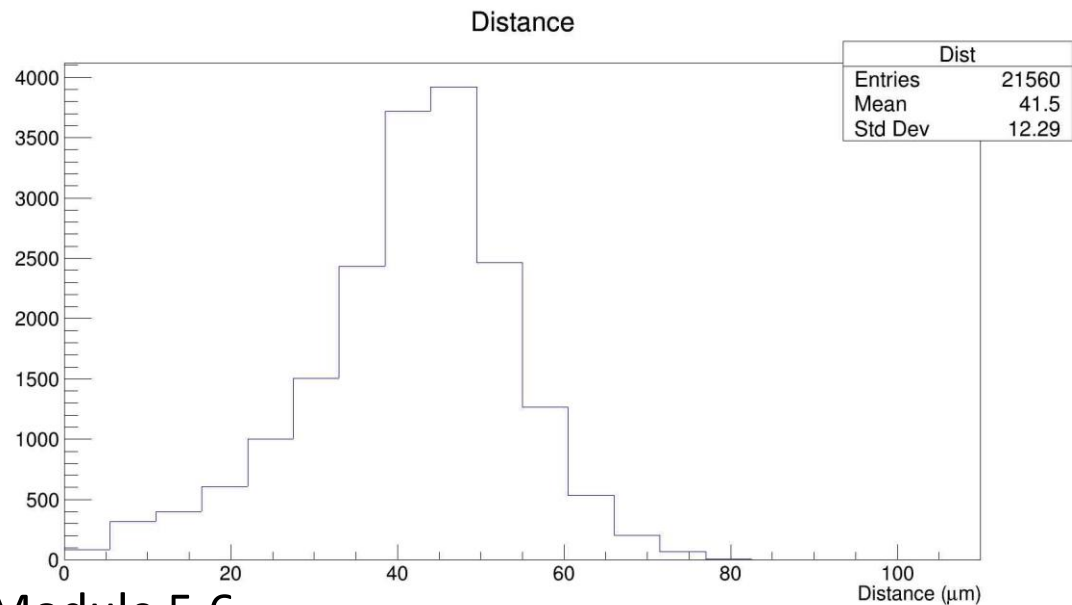


## Module 3,4

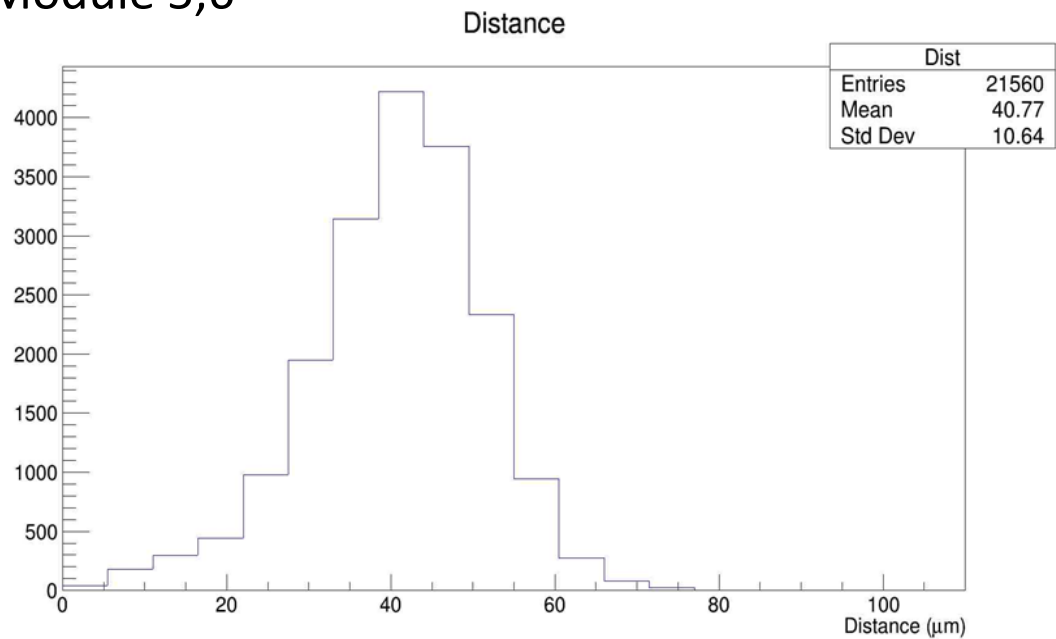




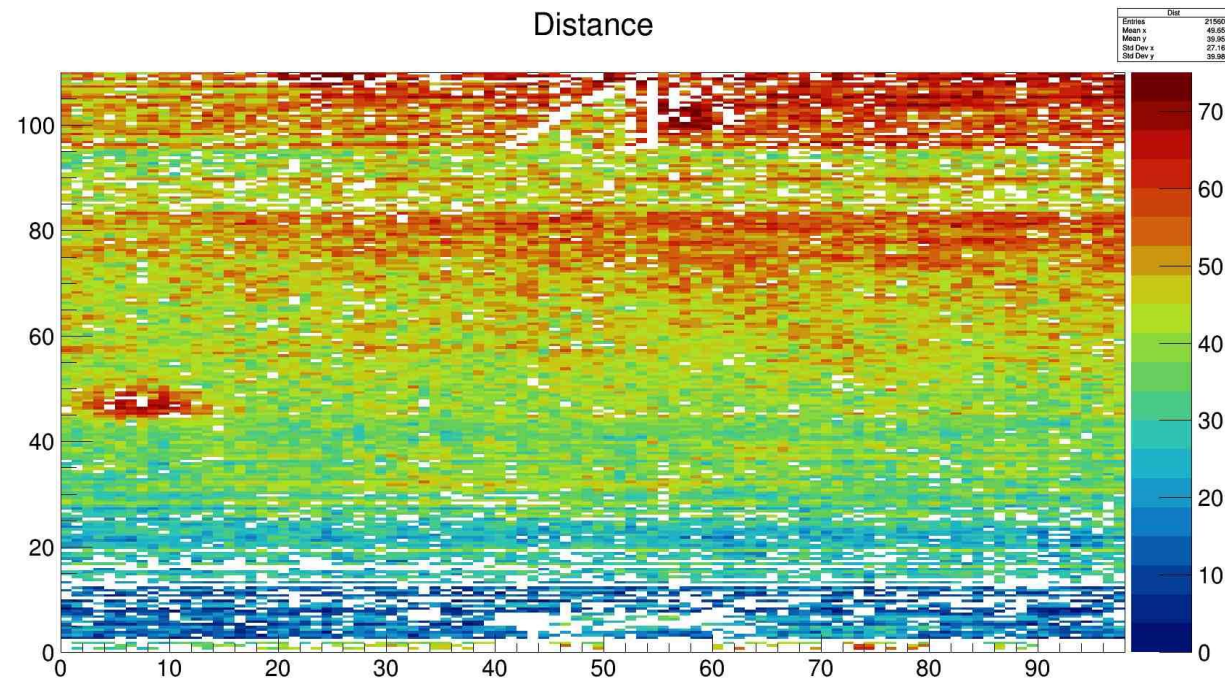
# Continue



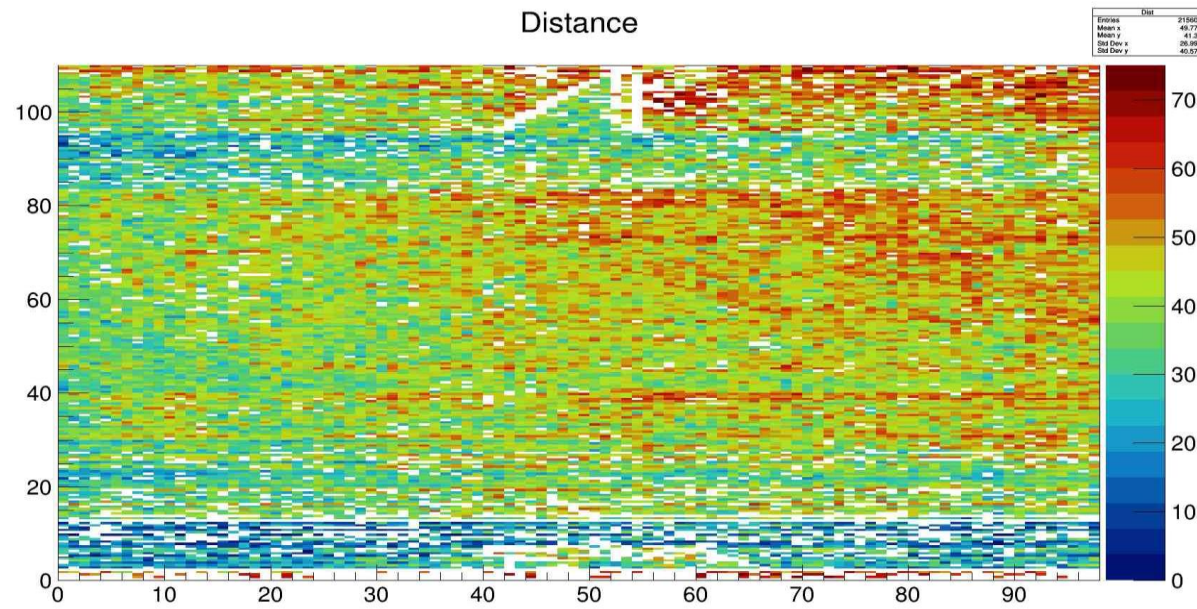
Module 5,6



Distance

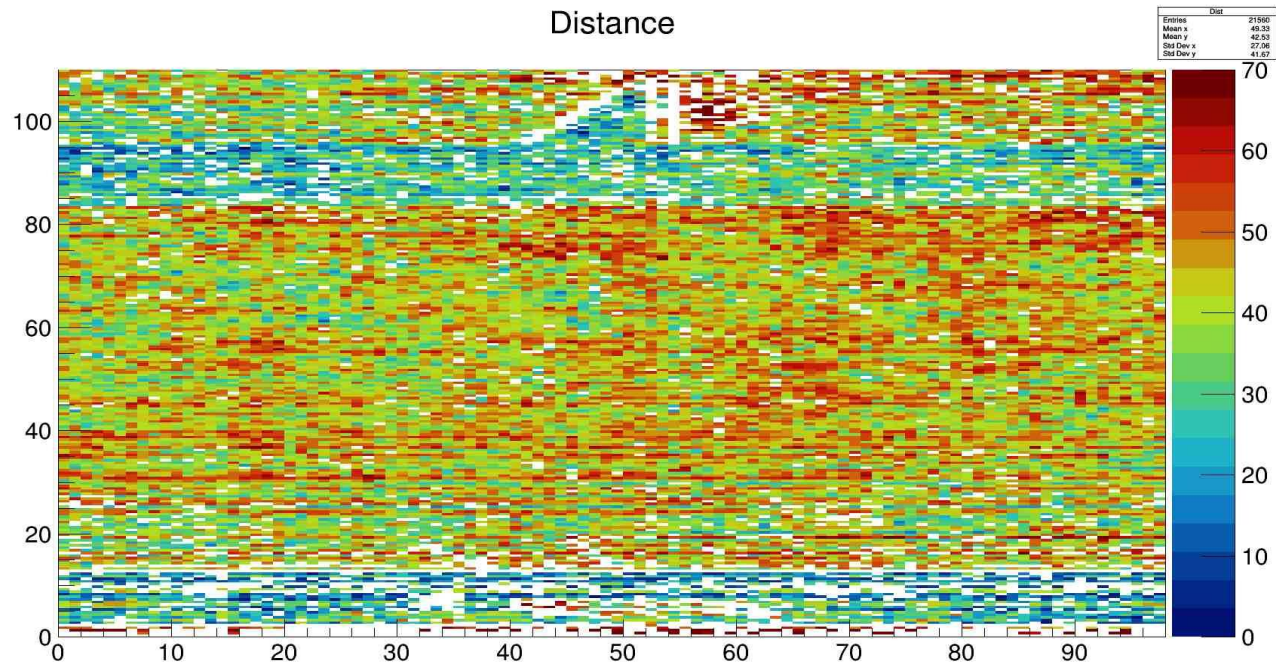
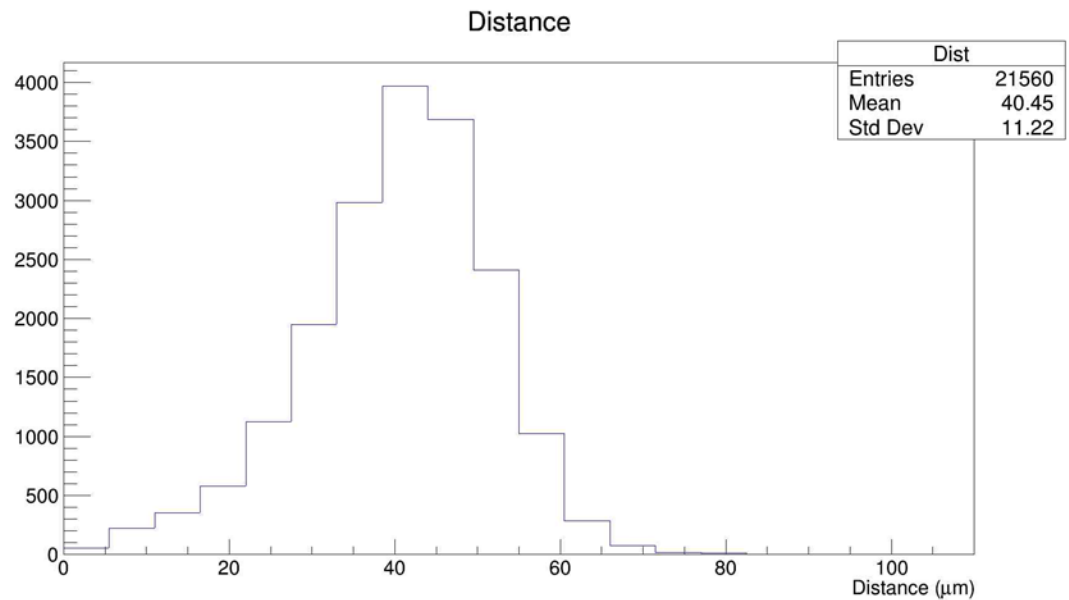


Distance

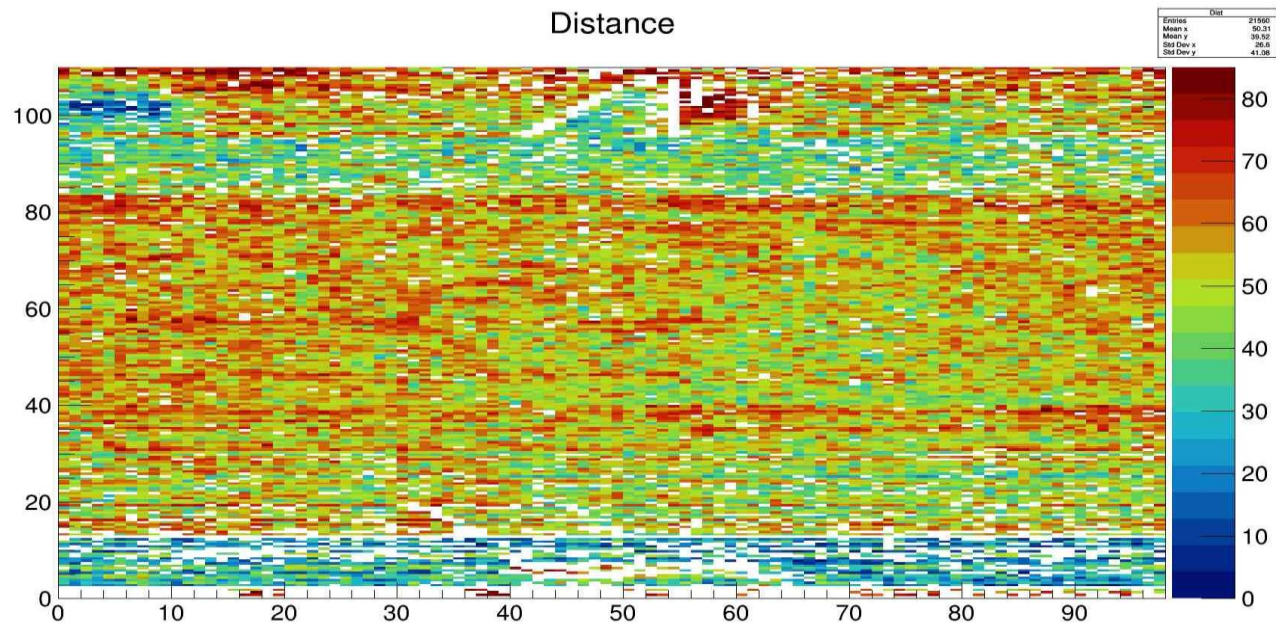
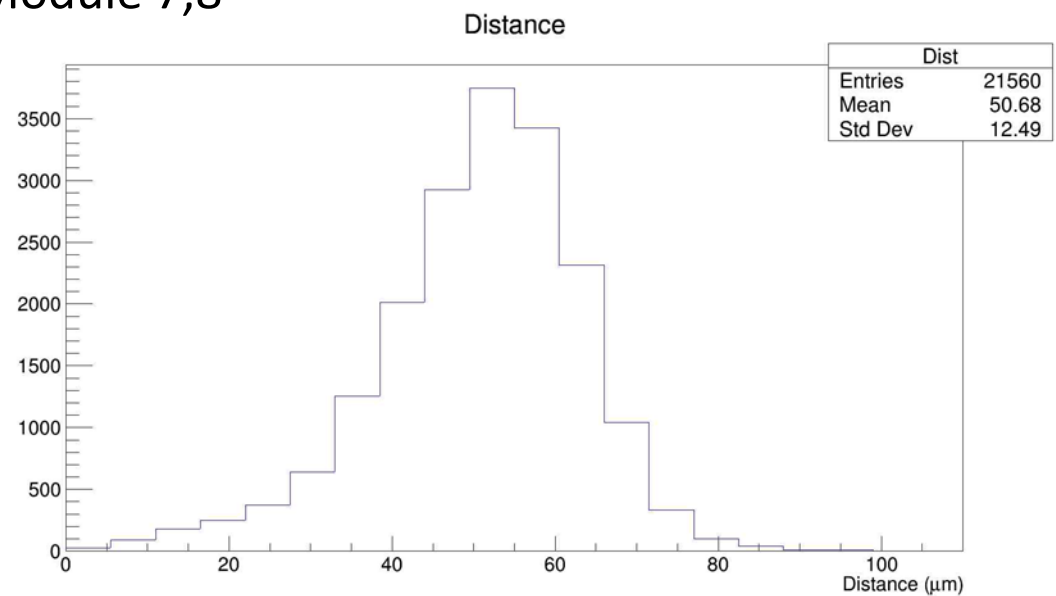




# Continue

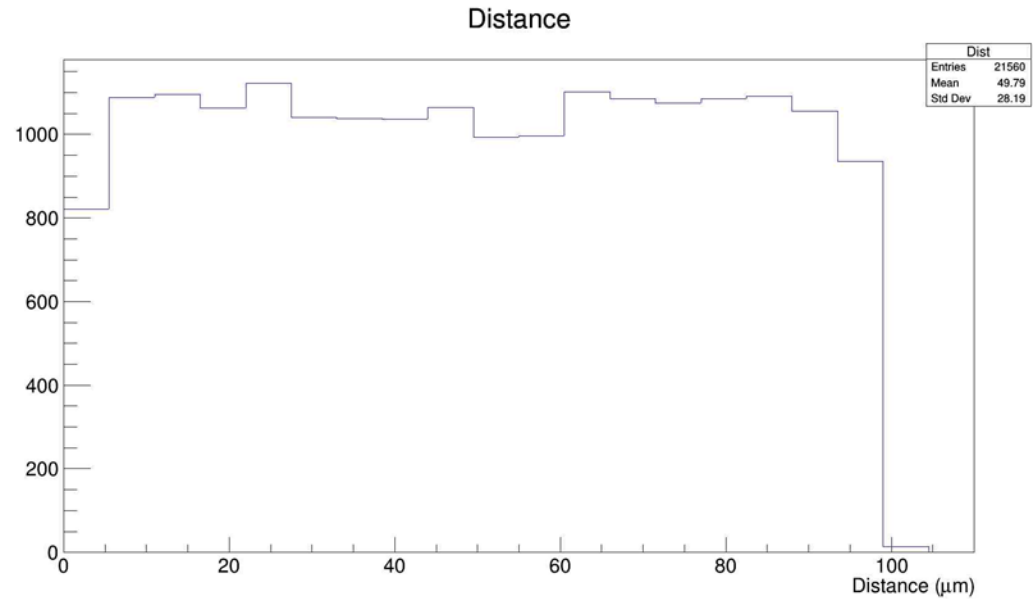


# Module 7,8

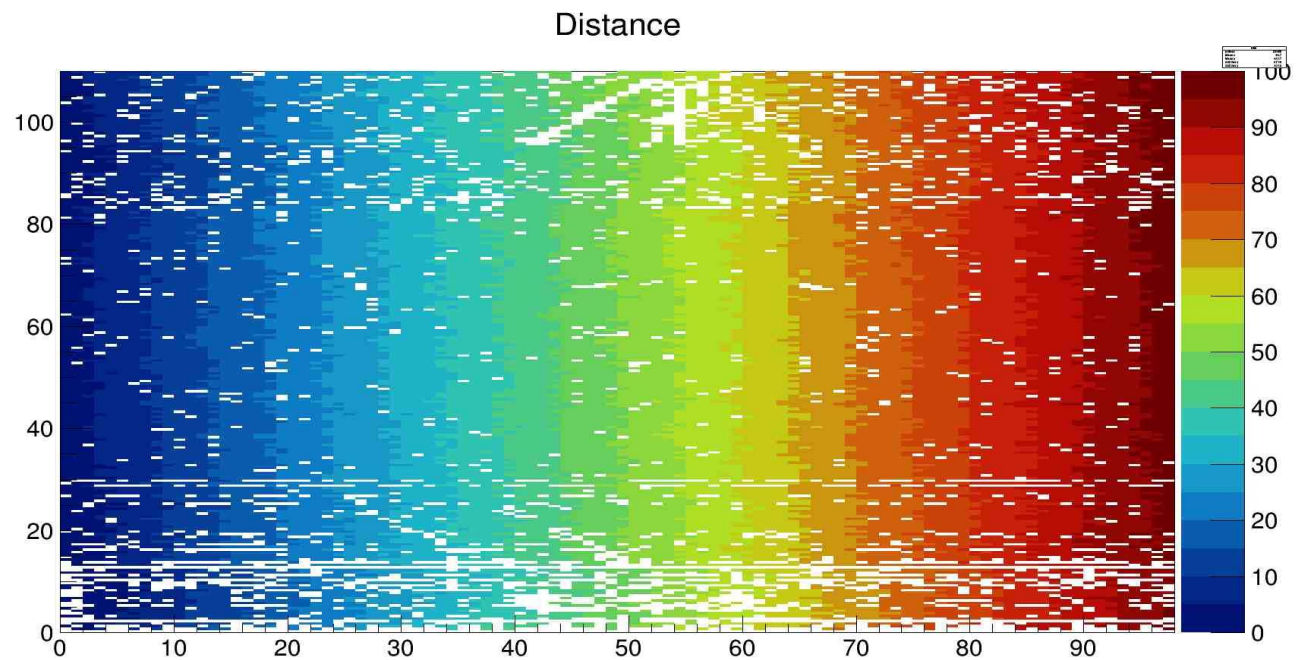
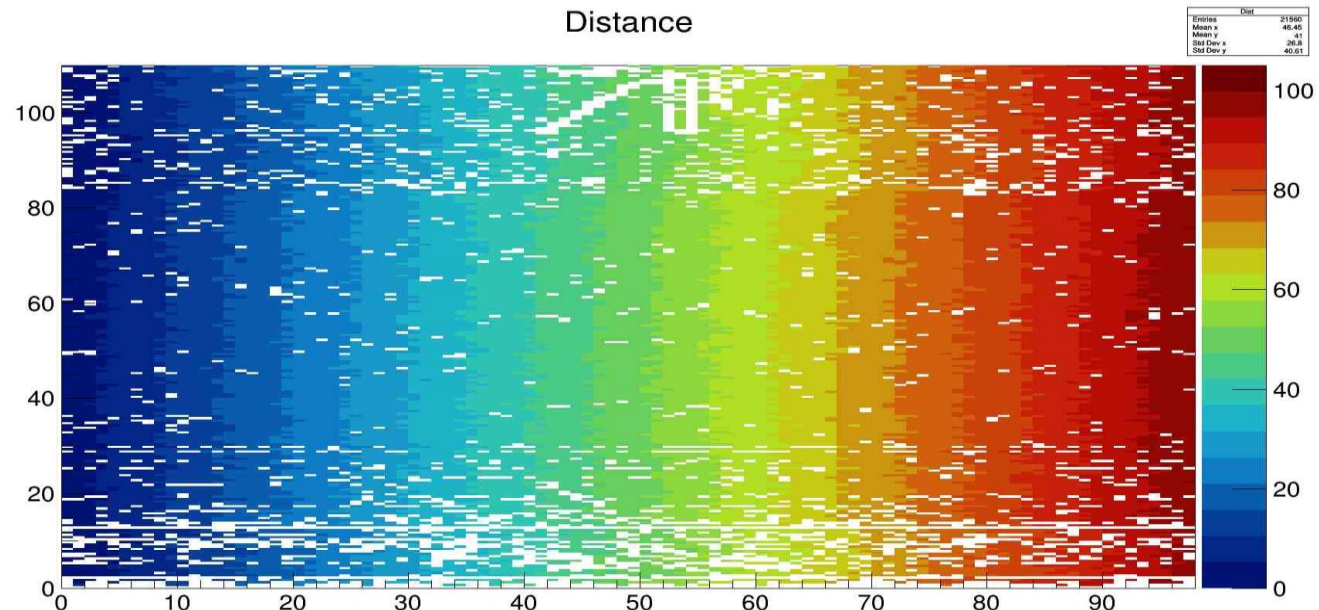
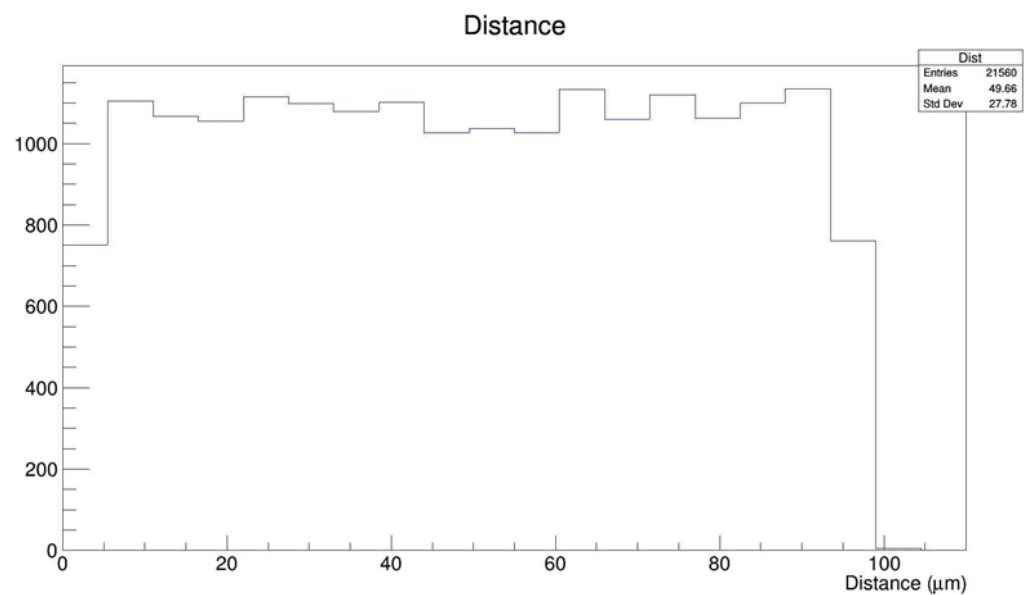




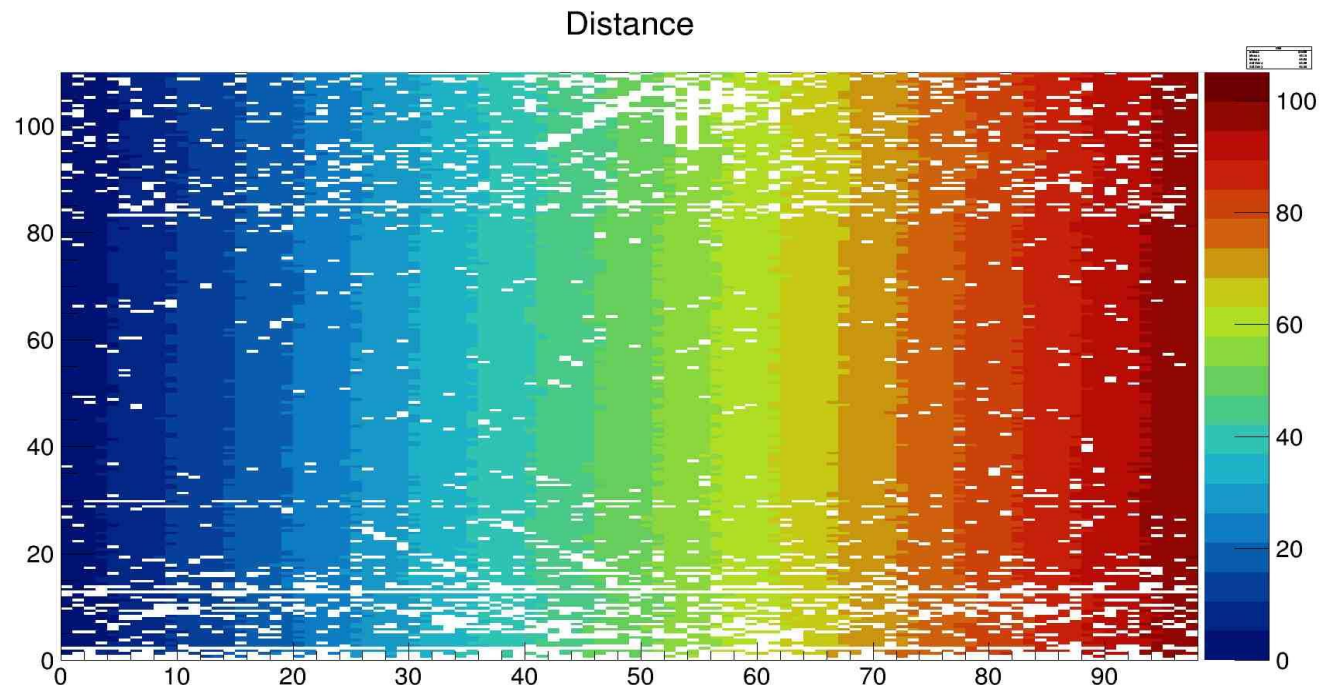
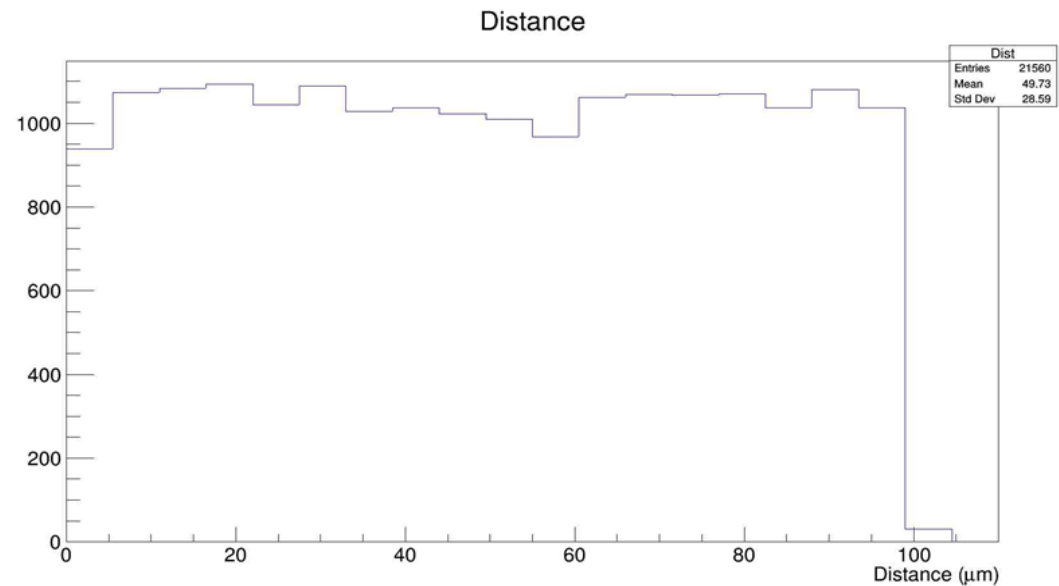
# Continue



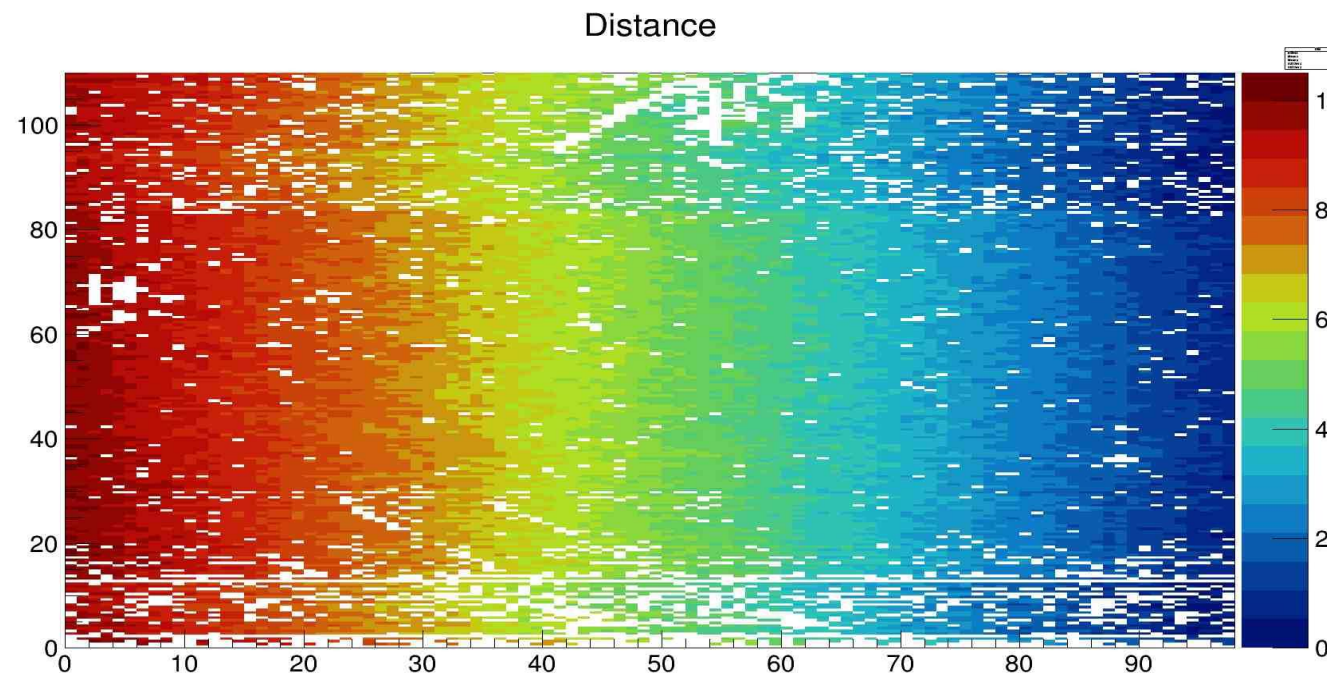
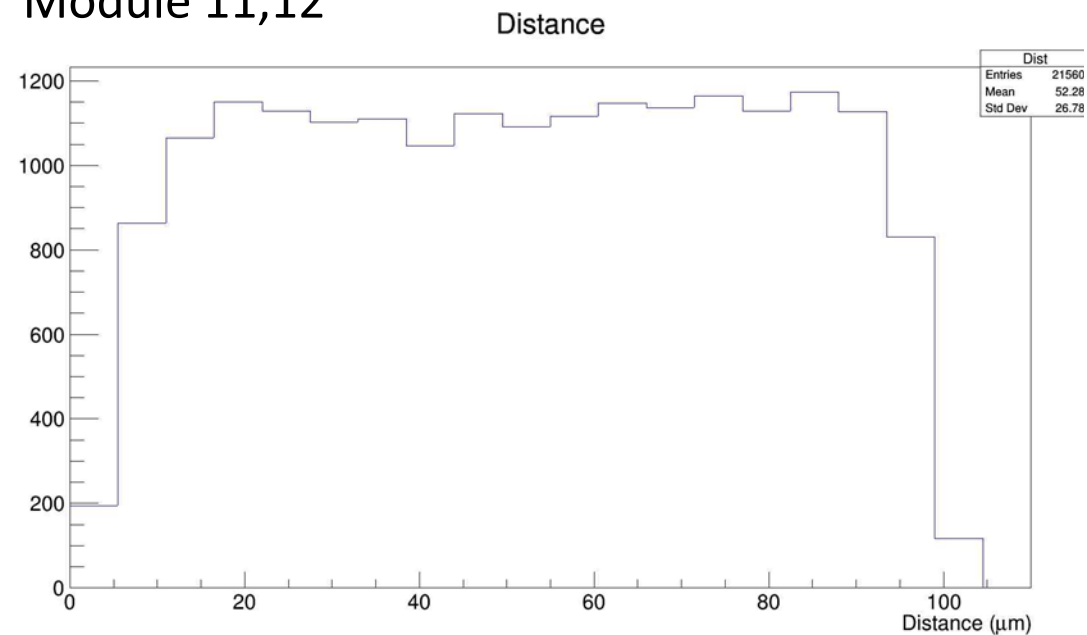
# Module 9,10



# Continue

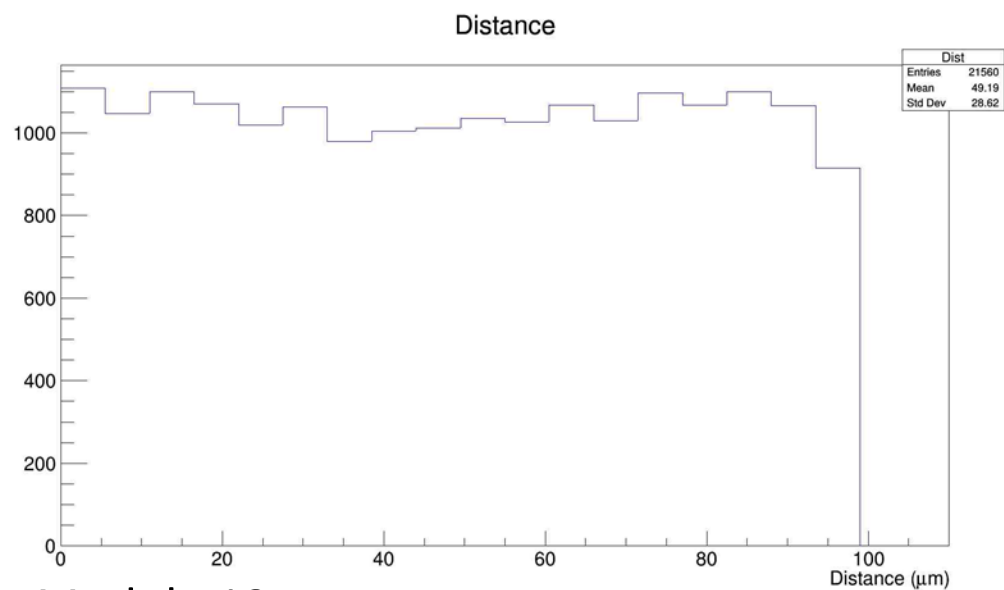


# Module 11,12

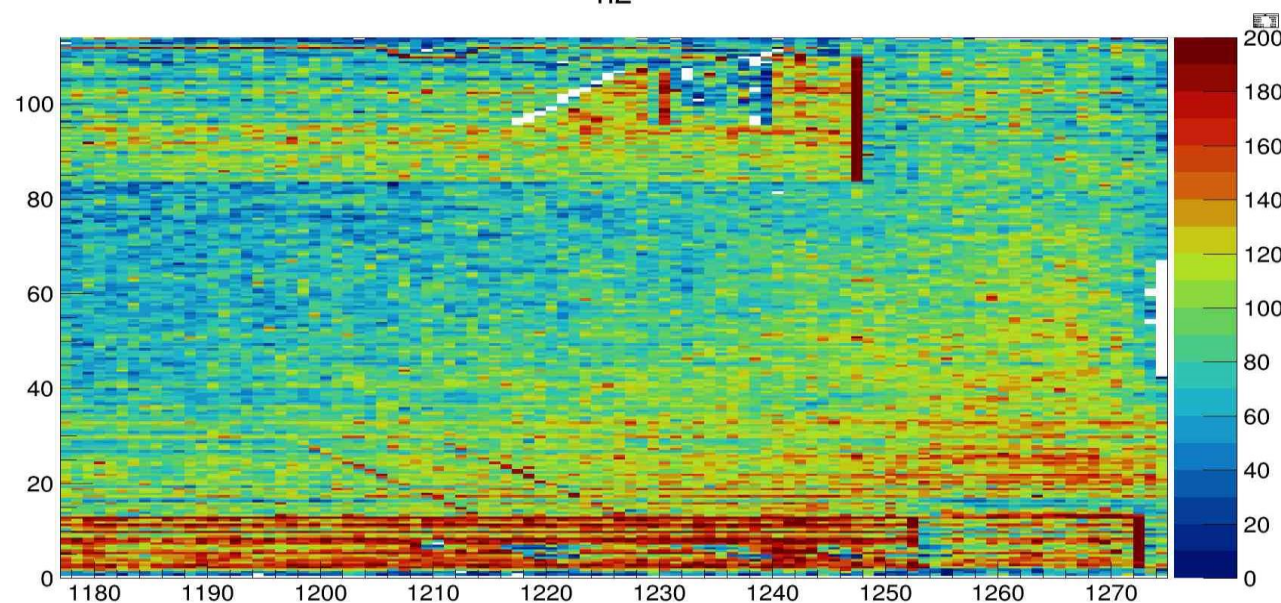
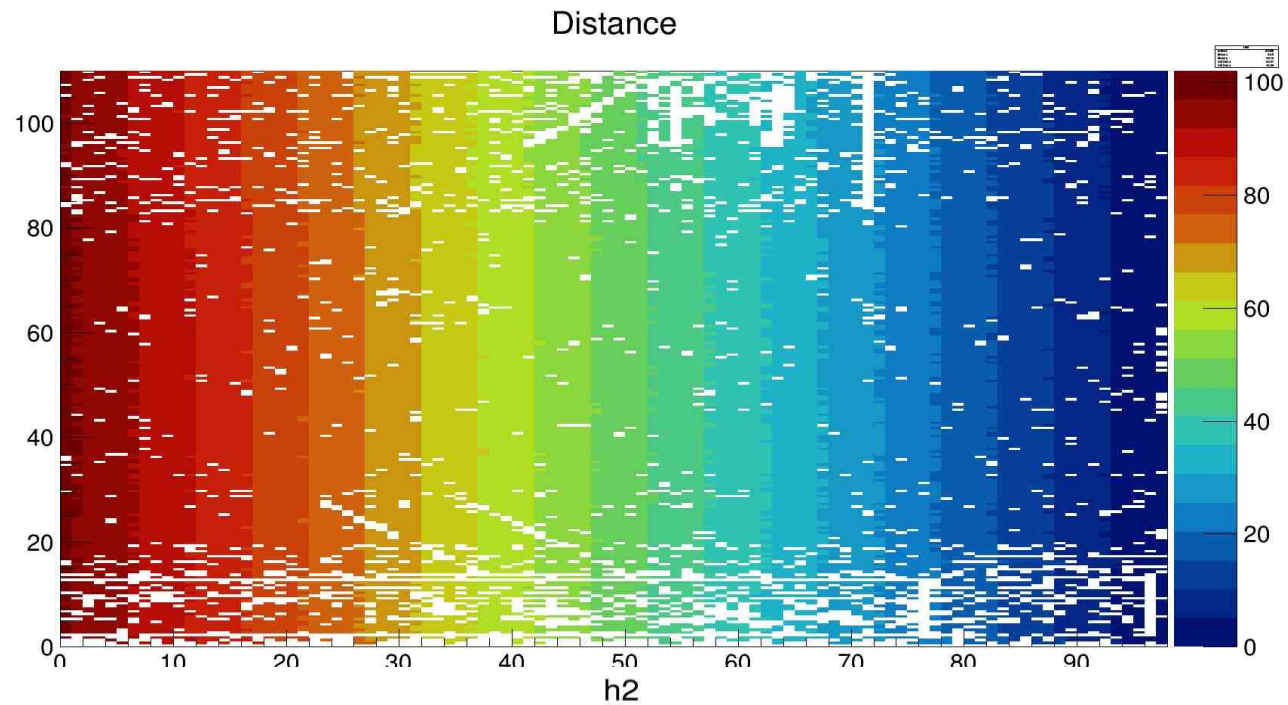




# Continue



Module 13



Module 13 L0 scanned data

## Three selected points for calculating potential plane

Module	Three Points (length, width) mm			Total No. of points (max 880)
1	(1,1)	(1,99)	(3,102)	846
2	(19,10.5)	(83,8)	(87,95)	876
3	(12,11.5)	(49,100.5)	(92,8.5)	880
4	(1,92)	(33,11.5)	(77,8.5)	878
5	(9,8.5)	(37,10.5)	(73,8.5)	873
6	(4,93)	(17,11)	(90,8.5)	875
7	(12,95)	(23,11.5)	(98,8.5)	877
8	(10,101.5)	(12,11.5)	(81,3)	870
9	(2,10)	(1,25.5)	(1,98)	880
10	(1,2)	(3,11.5)	(1,86)	880
11	(1,12.5)	(1,79)	(3,102)	880
12	(98,3)	(98,87.5)	(3,93)	880
13	(97,2.5)	(98,21)	(3,65.5)	880

For module 9-13, the distances from data point to potential plane are linearly related to length.

It seems that the potential plane forms an angle with the data plate