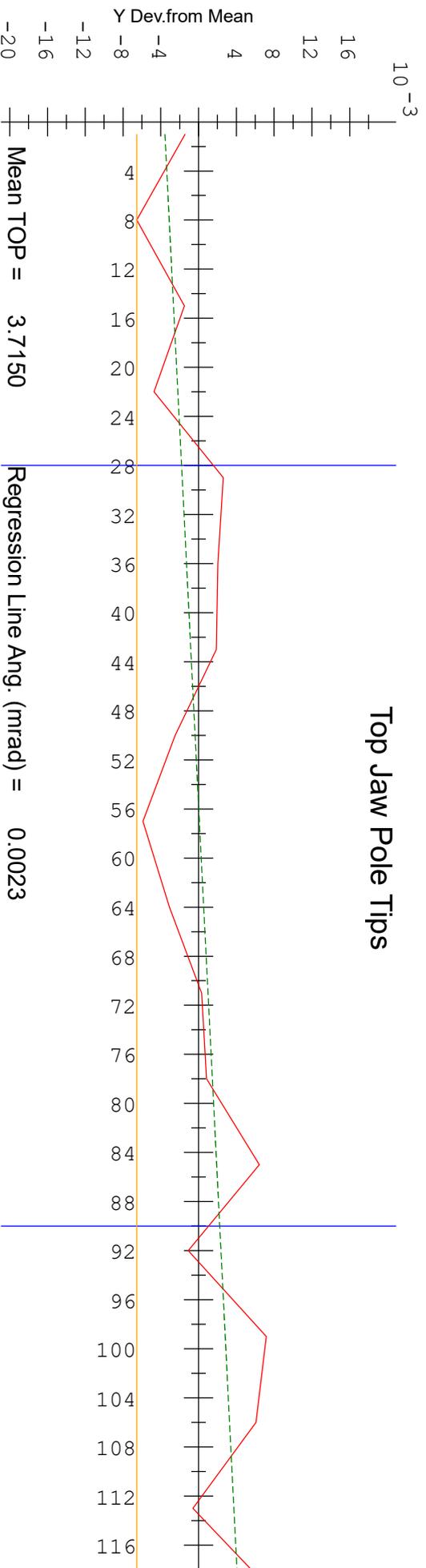


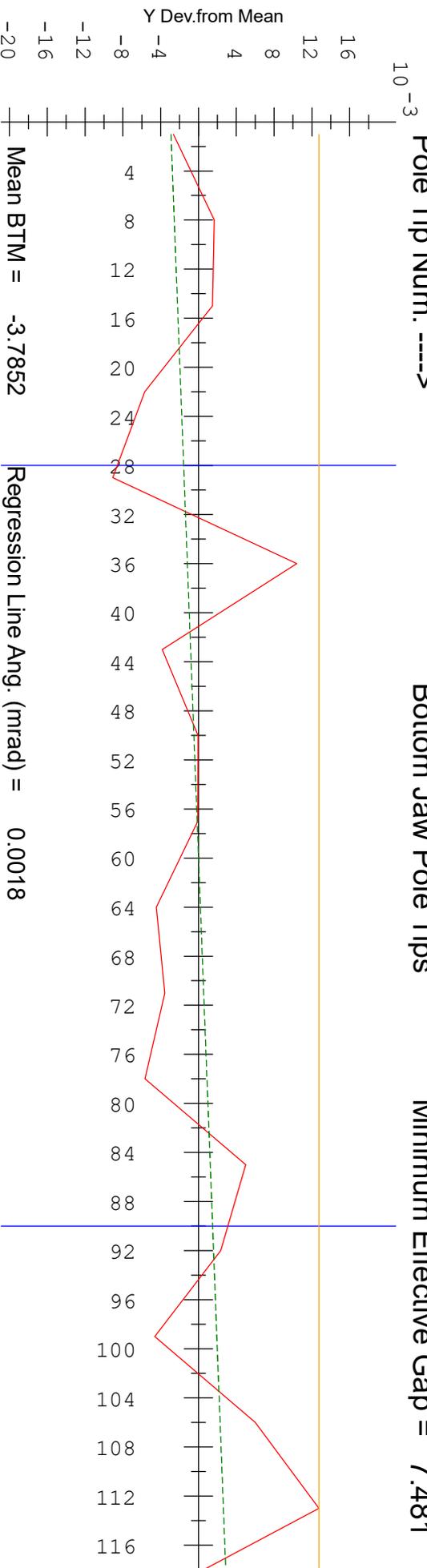
### Top Jaw Pole Tips



Pole Tip Num. ---->

Bottom Jaw Pole Tips

Minimum Effective Gap = 7.481



Y Value Scales Centered on Mean Values  
Step Between Measured Pole Tips = 7

Regression Line Through Points = -----  
Dimensions in mm



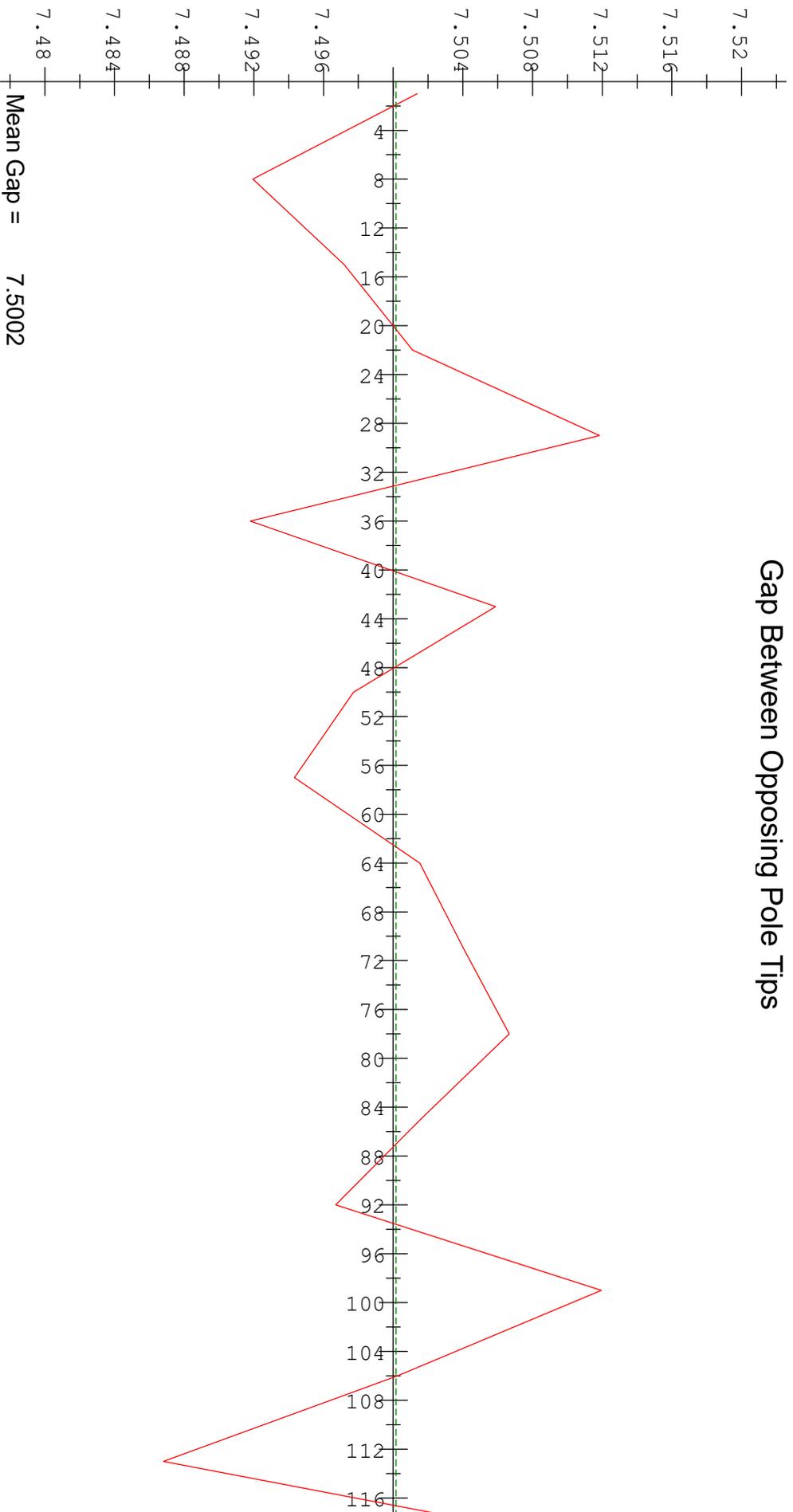
METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 7.5      Nominal Taper = 0.000  
Gap Reading = 7.5000      US Encoder = 7.5000      DS Encoder = 7.5000

29-AUG-2022  
S/N = 000  
D/S = 0001  
Run = 6

# Gap Between Opposing Pole Tips



Step Between Measured Pole Tips = 7

Dimensions in mm



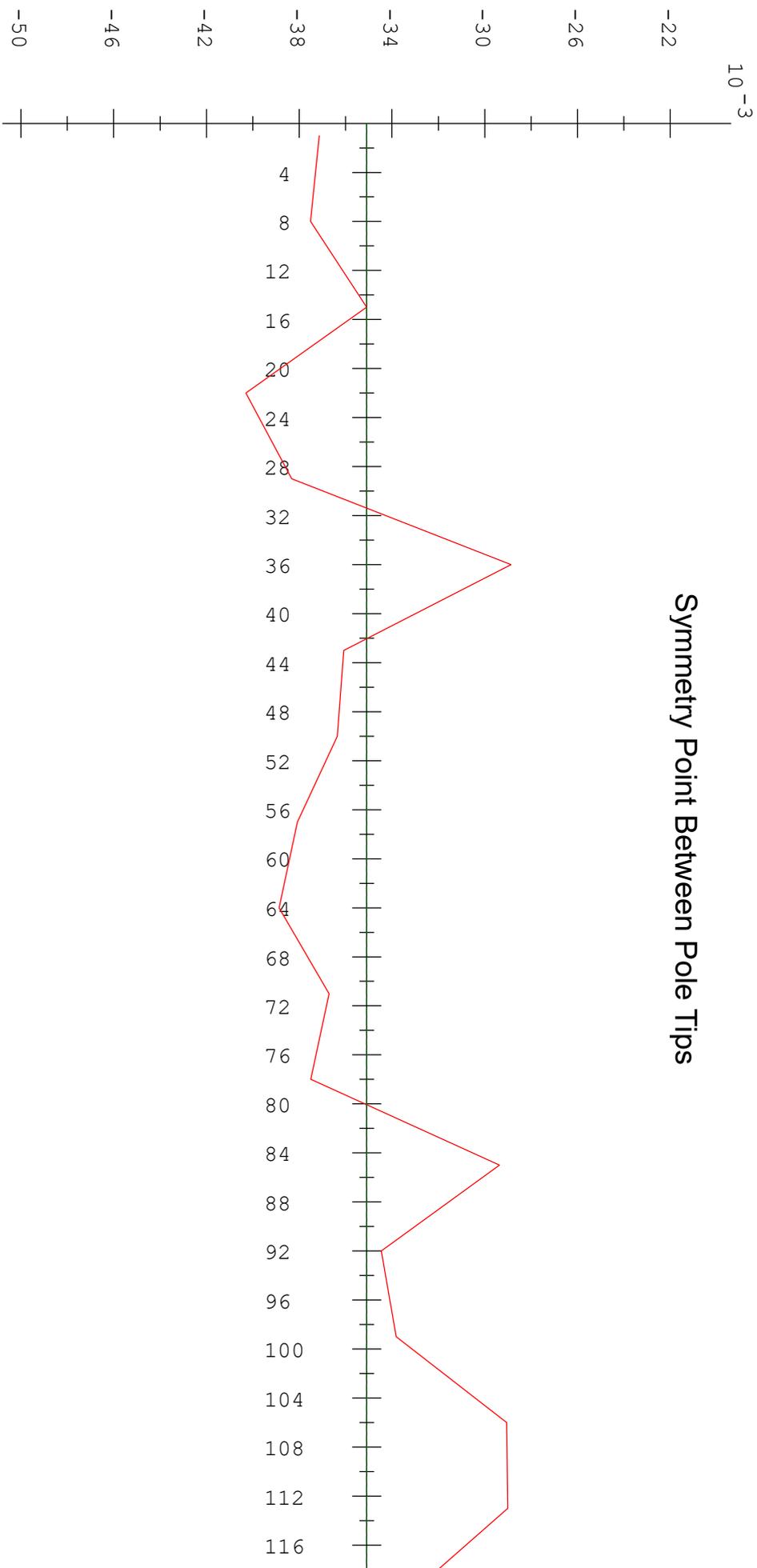
METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 7.5      Nominal Taper = 0.000  
Gap Reading = 7.5000      US Encoder = 7.5000      DS Encoder = 7.5000

29-AUG-2022  
S/N = 000  
D/S = 0001  
Run = 6

### Symmetry Point Between Pole Tips



Mean Symmetry Value = -0.0351

Step Between Measured Pole Tips = 7

Dimensions in mm



METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 7.5

Gap Reading = 7.5000

US Encoder = 7.5000

Nominal Taper = 0.000

DS Encoder = 7.5000

29-AUG-2022

S/N = 000

D/S = 0001

Run = 6

## Top and Bottom Jaw Regression Line Intersect Points

Jaw	First Pole <i>(Pole -1)</i>	US Actuator <i>(Pole 28)</i>	DS Actuator <i>(Pole 90)</i>	Last Pole <i>(Pole 118)</i>
<b>Top</b>	3.7114	3.7132	3.7172	3.7191
<b>Bottom</b>	-3.7881	-3.7867	-3.7837	-3.7823
<b>Gap</b>	7.4995			7.5013
<b>Taper</b>				0.0018

## Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
3.7150	-3.7852	7.5002	-0.0351

## Additional Calculated Values

<b>Bottom Pole #1 Z Value</b>	974.854
<b>Top Jaw Pitch (mrad)</b>	0.002
<b>Bottom Jaw Pitch(mrad)</b>	0.002
<b>Minimum Effective Gap</b>	7.481
<b>Reference Block Gap</b>	6.801

Dimensions in mm



METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 7.5      Nominal Taper = 0.000  
 Gap Reading = 7.5000      US Encoder = 7.5000      DS Encoder = 7.5000

29-AUG-2022  
 S/N = 000  
 D/S = 0001  
 Run = 6