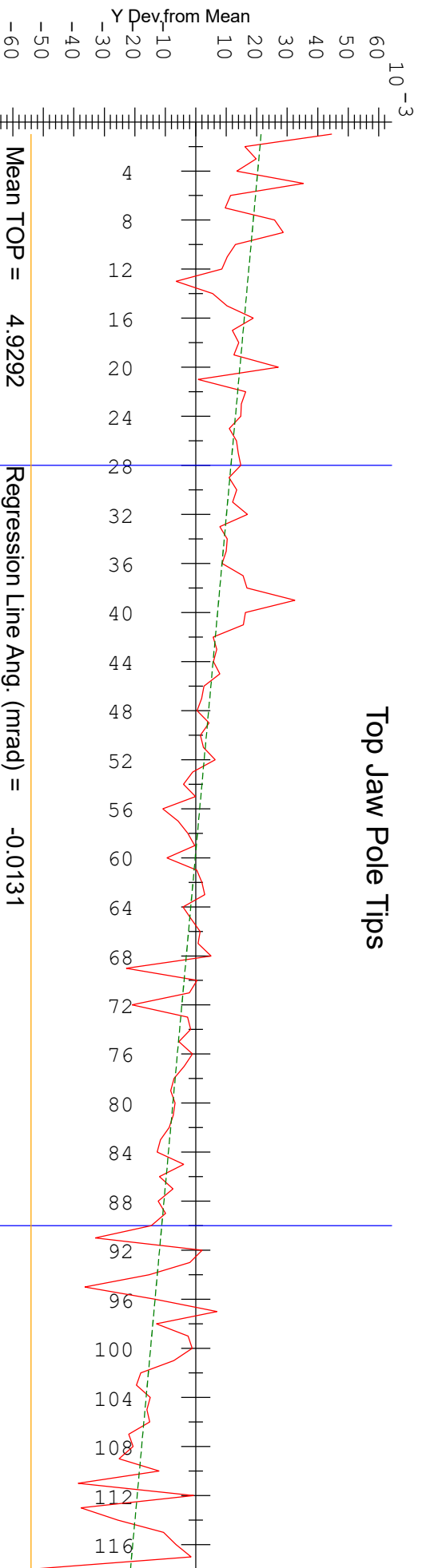


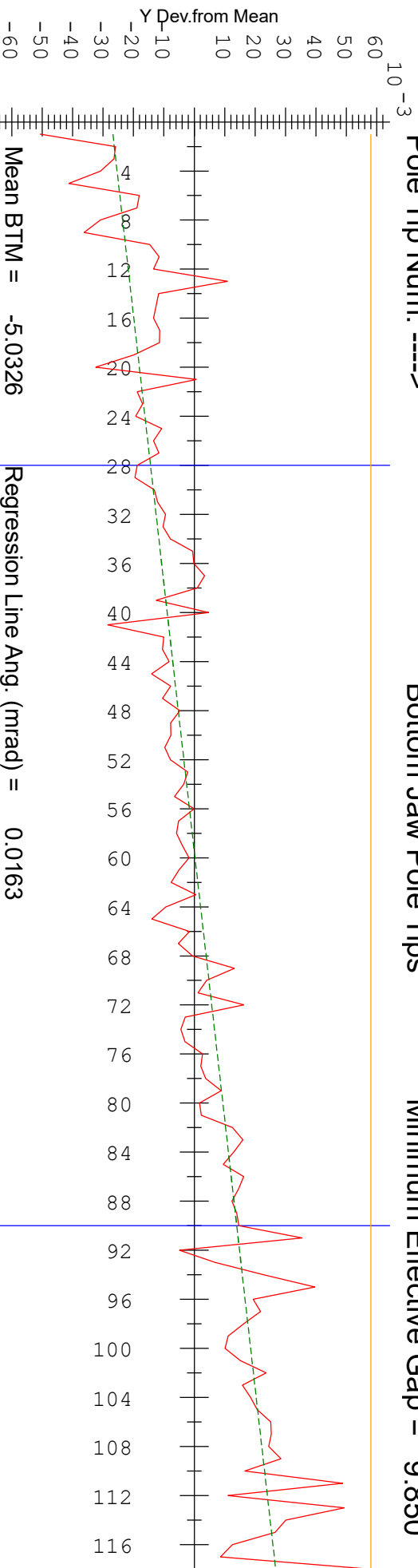
### Top Jaw Pole Tips



Pole Tip Num. ---->

Bottom Jaw Pole Tips

Minimum Effective Gap = 9.850



Y Value Scales Centered on Mean Values  
Step Between Measured Pole Tips = 1

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



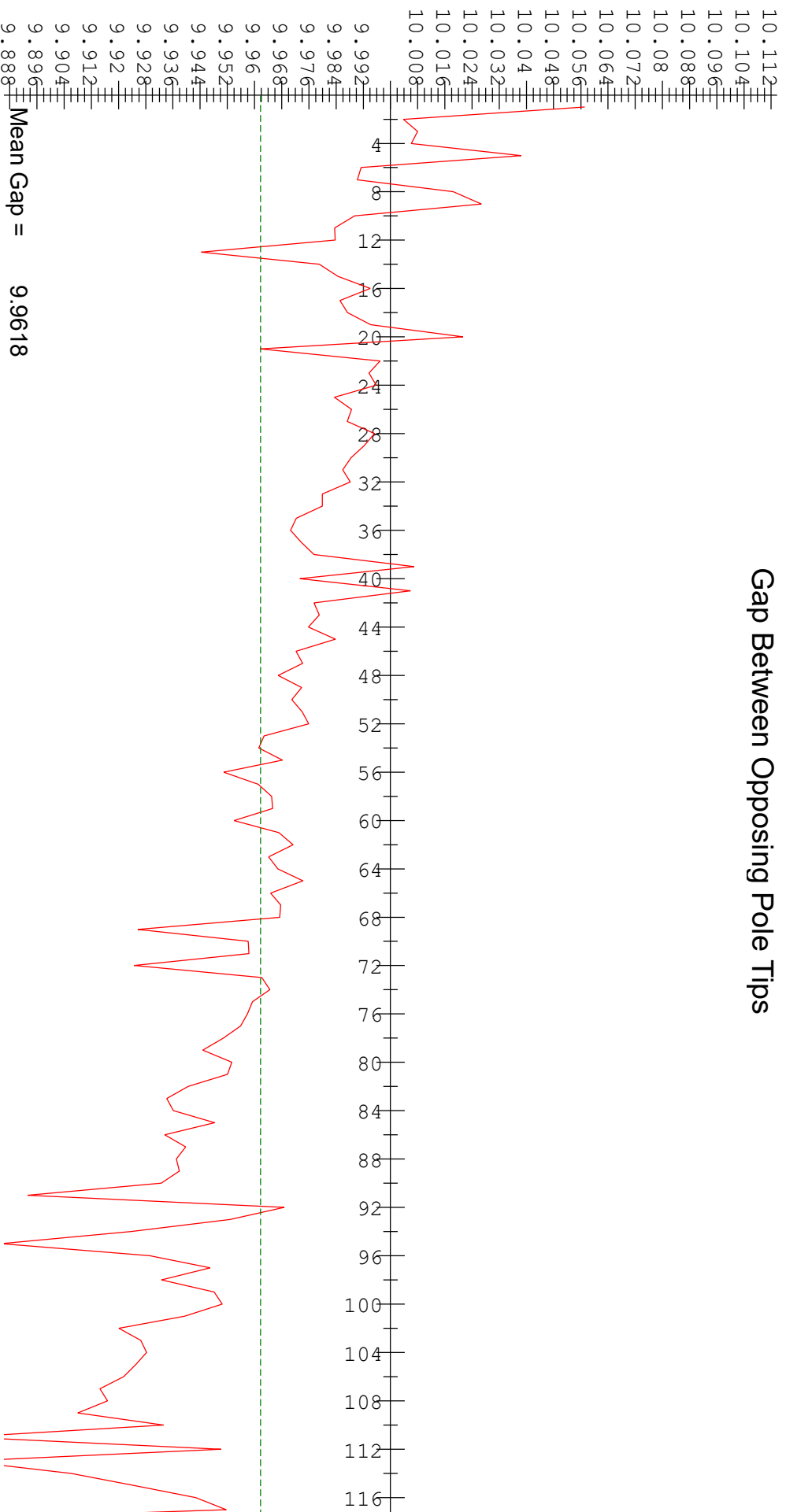
METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = -0.100  
Gap Reading = 9.9500      US Encoder = 10.0000      DS Encoder = 9.9000

11-OCT-2023  
S/N = 000  
D/S = 0003  
Run = 11

# Gap Between Opposing Pole Tips



Step Between Measured Pole Tips = 1

Dimensions in mm

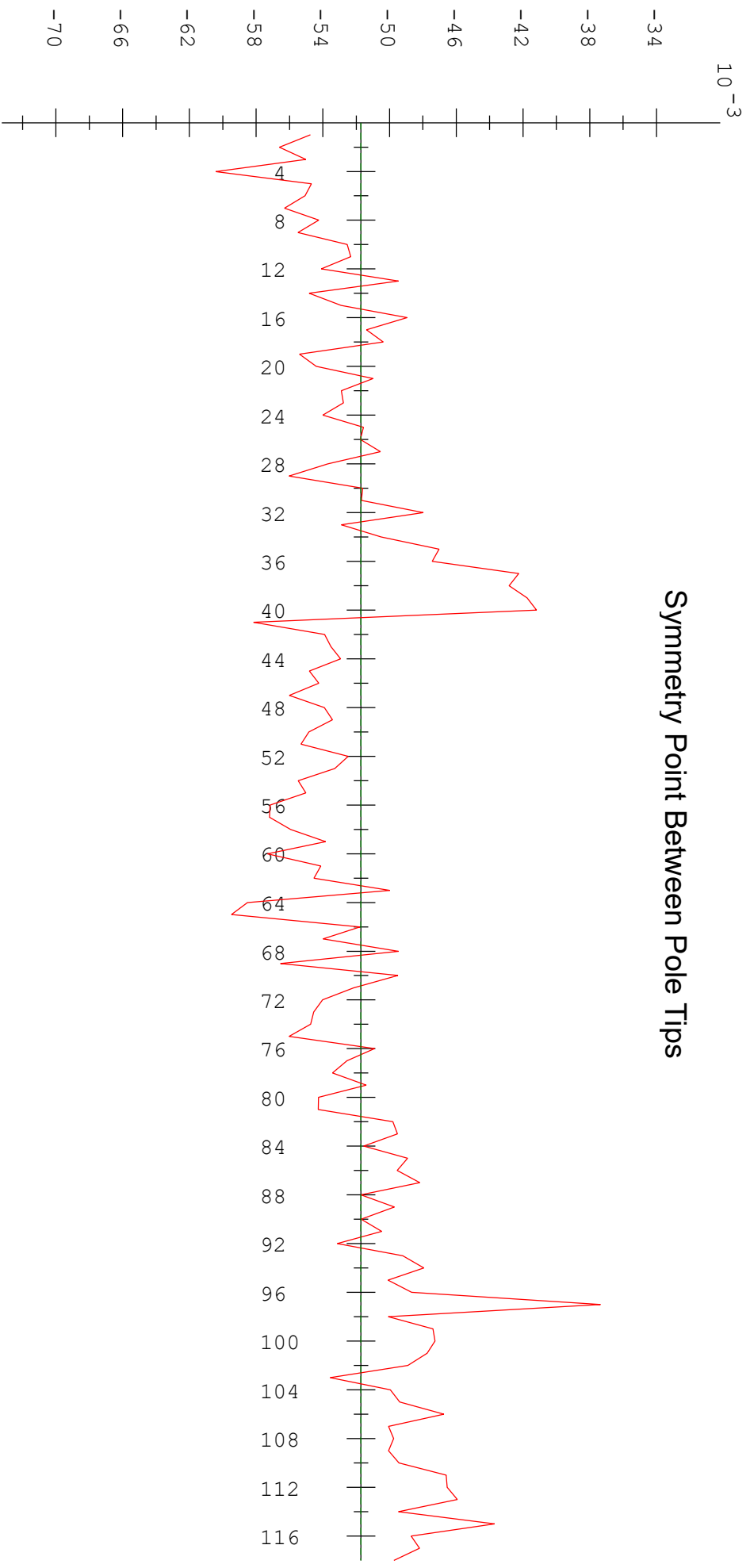


METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = -0.100  
Gap Reading = 9.9500      US Encoder = 10.0000      DS Encoder = 9.9000

11-OCT-2023  
S/N = 000  
D/S = 0003  
Run = 11



Symmetry Point Between Pole Tips

Mean Symmetry Value = -0.0517

Step Between Measured Pole Tips = 1

Dimensions in mm



METROLOGY

# LCLS II-HE - SXR Undulator

Nominal Gap = 10

Nominal Taper = -0.100

Gap Reading = 9.9500

US Encoder = 10.0000

DS Encoder = 9.9000

11-OCT-2023

S/N = 000

D/S = 0003

Run = 11

## 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>	4.9506	4.9407	4.9180	4.9077
<b>Bottom</b>	-5.0594	-5.0470	-5.0186	-5.0058
<b>Gap</b>	10.0100			9.9136
<b>Taper</b>				-0.0964

## Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
4.9292	-5.0326	9.9618	-0.0517

## Additional Calculated Values

<b>Bottom Pole #1 Z Value</b>	<b>979.125</b>
<b>Top Jaw Pitch (mrad)</b>	<b>-0.013</b>
<b>Bottom Jaw Pitch(mrad)</b>	<b>0.016</b>
<b>Minimum Effective Gap</b>	<b>9.850</b>
<b>Reference Block Gap</b>	<b>6.800</b>

Dimensions in mm



METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = -0.100  
 Gap Reading = 9.9500      US Encoder = 10.0000      DS Encoder = 9.9000

11-OCT-2023  
 S/N = 000  
 D/S = 0003  
 Run = 11