LCLS II-HE - SXR Undulator

METROLOGY

Top Jaw Pole Tips

Mean TOP =   5.3407

Regression Line Ang. (mrad) =   0.0047

Bottom Jaw Pole Tips

Minimum Effective Gap =   10.056

Pole Tip Num. ---->

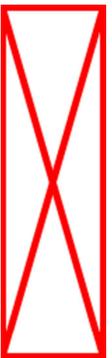Mean BTM =   -4.7414

Regression Line Ang. (mrad) =   0.0034

Y Value Scales Centered on Mean Values

Step Between Measured Pole Tips =   1

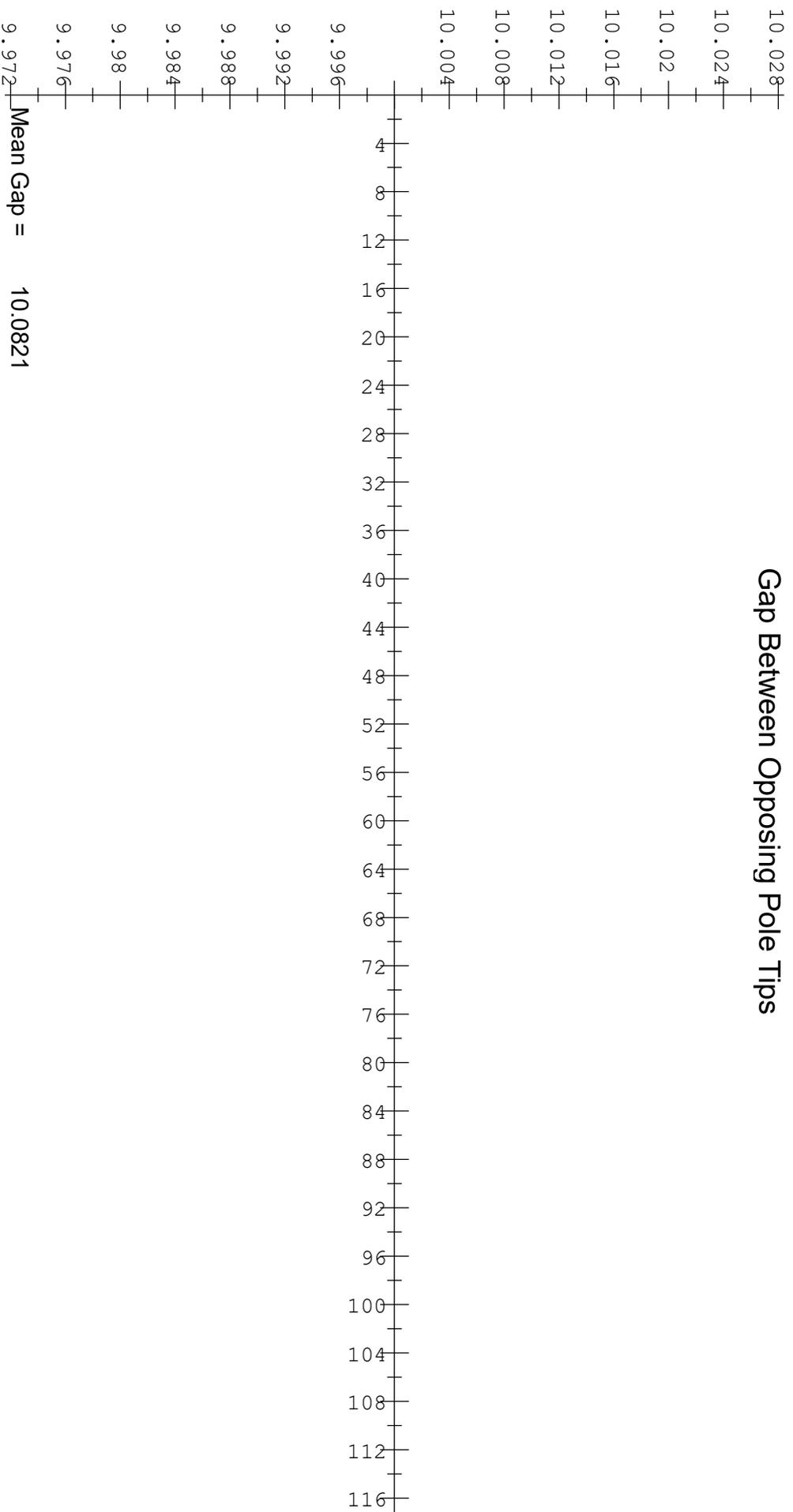Regression Line Through Points = - - - - -

Dimensions in mm

Y Dev.from Mean

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0002   US Encoder = 10.0005   DS Encoder = 9.9999

14-JAN-2026
S/N =   003
D/S=   0001
Run=   3

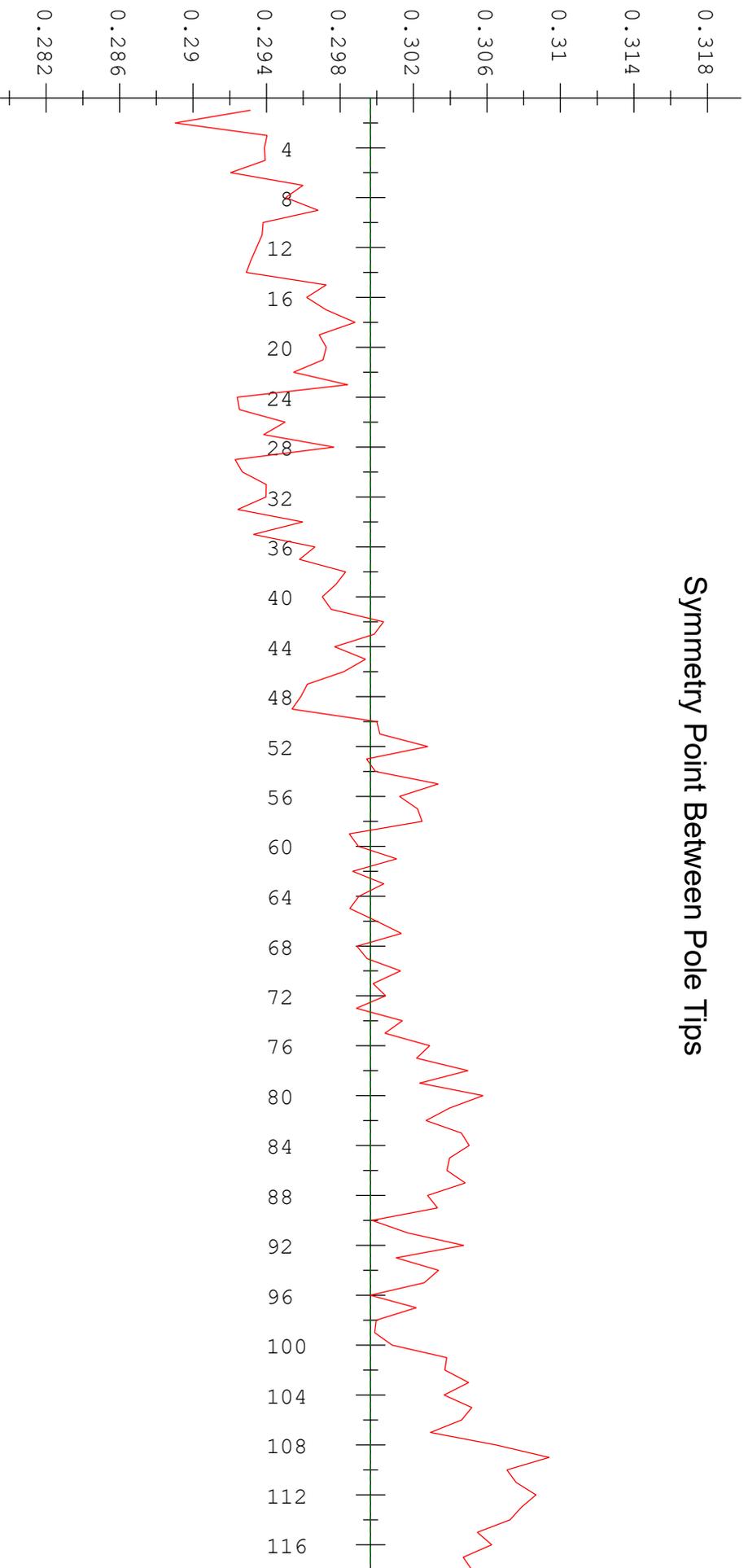# Gap Between Opposing Pole Tips

Gap Between Measured Pole Tips = **1**

Step Between Measured Pole Tips = **1**

Mean Gap = 10.0821

LCLS II-HE - SXR Undulator

Nominal Gap = 10	Nominal Taper = 0.000
Gap Reading = 10.0002	US Encoder = 10.0005	DS Encoder = 9.9999

Dimensions in mm

14-JAN-2026	
S/N =	003
D/S=	0001
Run=	3

METROLOGY

LCLS II-HE - SXR Undulator

Symmetry Point Between Pole Tips

Mean Symmetry Value = 0.2997

Step Between Measured Pole Tips = 1

METROLOGY

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0002   US Encoder = 10.0005   DS Encoder = 9.9999

Dimensions in mm

14-JAN-2026
S/N = 003
D/S = 0001
Run= 3

Top and Bottom Jaw
Regression Line Intersect Points

Jaw	First Pole (Pole 1)	US Actuator (Pole 28)	DS Actuator (Pole 90)	Last Pole (Pole 118)
Top	5.3330	5.3366	5.3447	5.3484
Bottom	-4.7470	-4.7444	-4.7384	-4.7358
Gap	10.0800		10.0841	
Taper				0.0041

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.3407	-4.7414	10.0821	0.2997

Additional Calculated Values

Bottom Pole #1 Z Value	978.726
Top Jaw Pitch (mrad)	0.005
Bottom Jaw Pitch(mrad)	0.003
Minimum Effective Gap	10.056
Reference Block Gap	6.798

LCLS II-HE - SXR Undulator

Nominal Gap = 10 **Nominal Taper = 0.000**
Nominal Gap = 10.0002
Gap Reading = 10.0002   US Encoder = 10.0005   DS Encoder = 9.9999

METROLOGY

Dimensions in mm

14-JAN-2026
S/N =   003
D/S=   0001
Run=   3