Top Jaw Pole Tips

Y Dev.from Mean

10^{-3}

18
12
6
−6
−12
−18
−24

4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96 100 104 108 112 116 120 124 128 132 136 140 144 148 152 156 160 164 168 172

Mean TOP =   6.4833   Regression Line Ang. (mrad) =   -0.0007

Pole Tip Num. ---->

Bottom Jaw Pole Tips

Minimum Effective Gap =   12.974

Y Dev.from Mean

10^{-3}

18
12
6
−6
−12
−18
−24

4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96 100 104 108 112 116 120 124 128 132 136 140 144 148 152 156 160 164 168 172

Mean BTM =   -6.5319   Regression Line Ang. (mrad) =   0.0007

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

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

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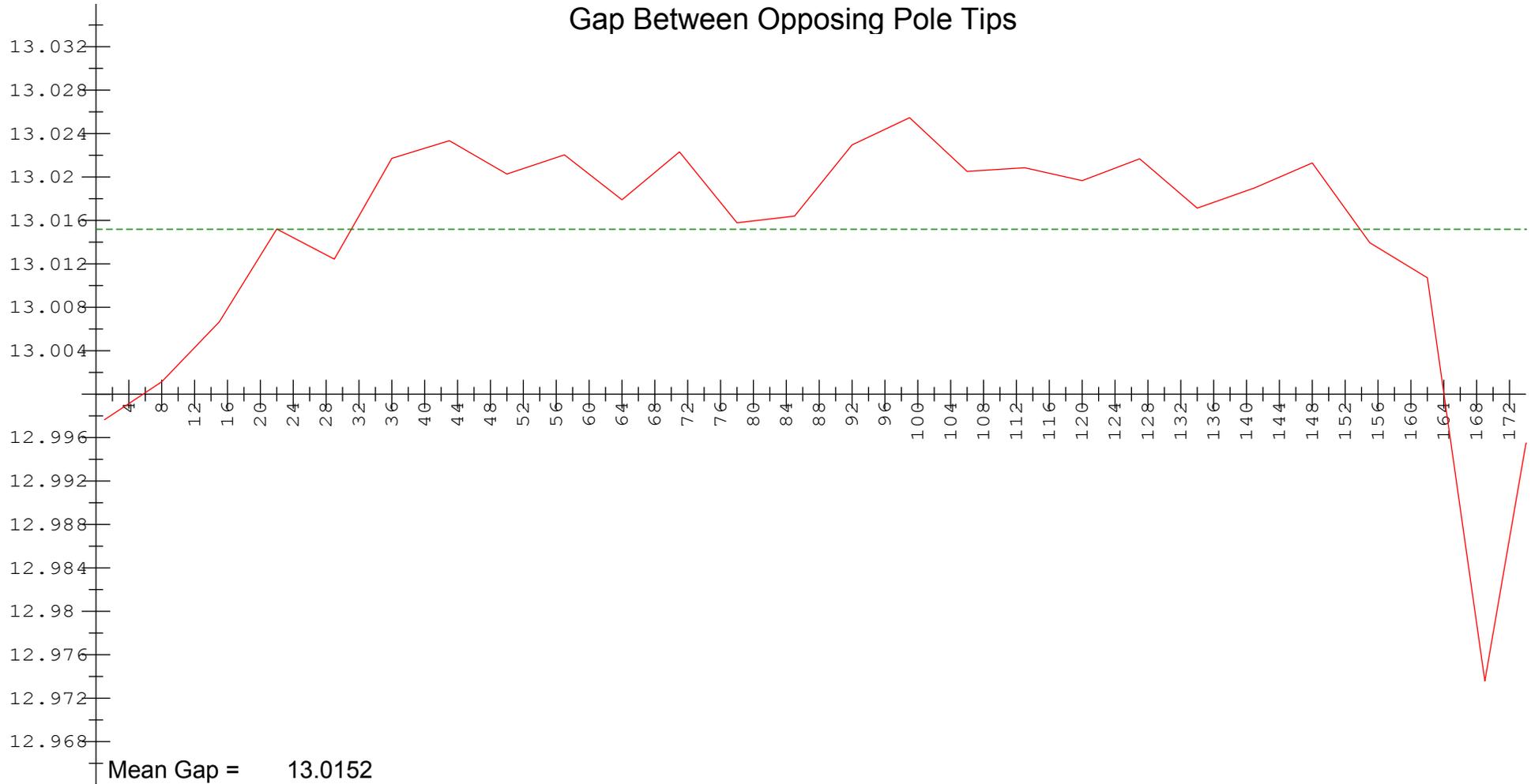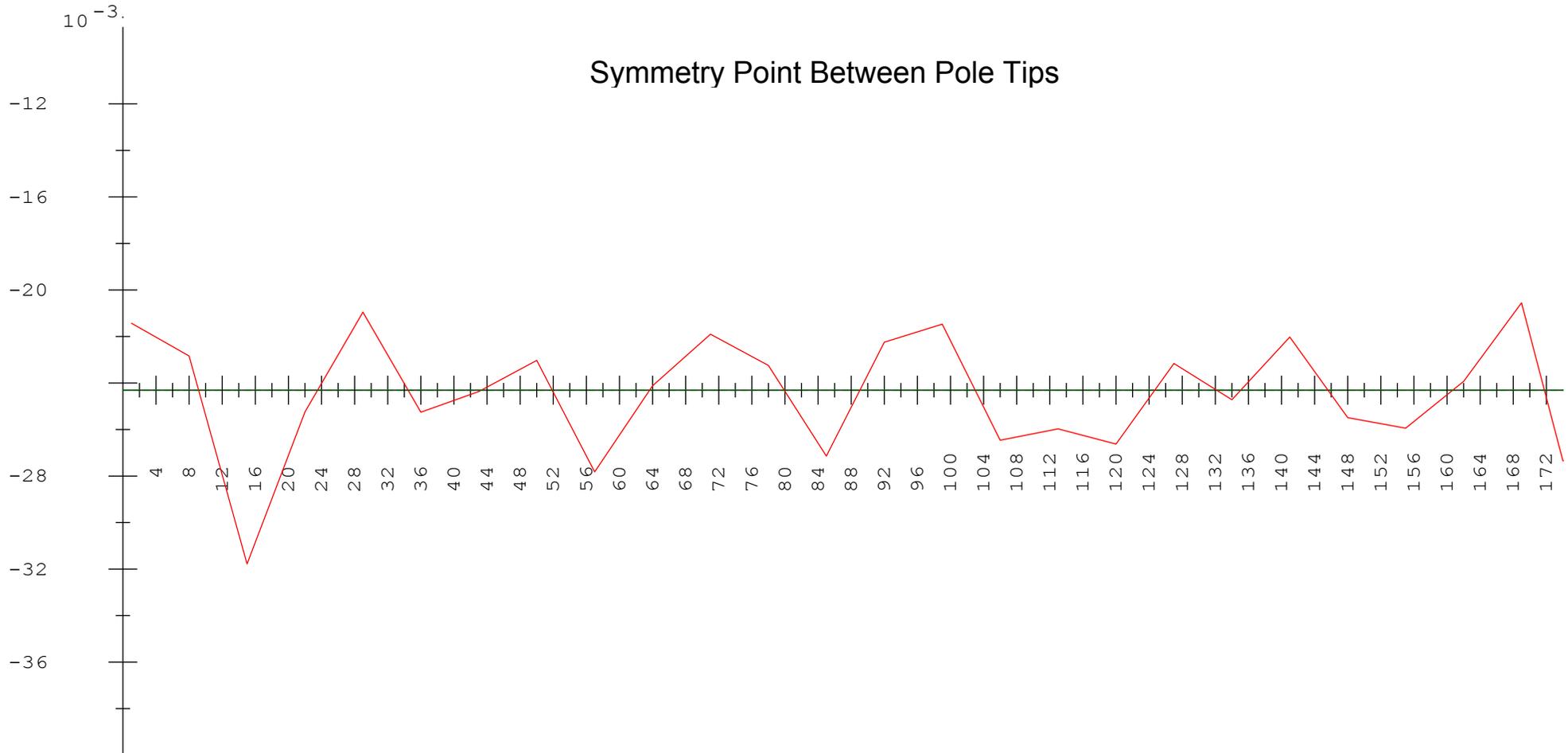METROLOGY

LCLS II - SXR Undulator

Nominal Gap = 13   Nominal Taper = 0.000
Gap Reading = 13.0001   US Encoder = 13.0001   DS Encoder = 13.0001

19-JUL-2018
S/N =   013
D/S=   0001
Run=   11

Gap Between Opposing Pole Tips

Mean Gap =   13.0152

Step Between Measured Pole Tips =   7

Dimensions in mm

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METROLOGY

LCLS II - SXR Undulator
Nominal Gap = 13   Nominal Taper = 0.000
Gap Reading = 13.0001   US Encoder = 13.0001   DS Encoder = 13.0001

19-JUL-2018
S/N =   013
D/S=   0001
Run=   11

Symmetry Point Between Pole Tips

Mean Symmetry Value =   -0.0243

Step Between Measured Pole Tips =   7

Dimensions in mm

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METROLOGY

LCLS II - SXR Undulator
Nominal Gap = 13   Nominal Taper = 0.000
Gap Reading = 13.0001   US Encoder = 13.0001   DS Encoder = 13.0001

19-JUL-2018
S/N =   013
D/S=   0001
Run=   11

Top and Bottom Jaw
Regression Line Intersect Points

Jaw	First Pole (Pole 1)	US Actuator (Pole 39)	DS Actuator (Pole 135)	Last Pole (Pole 174)
Top	6.4839	6.4834	6.4822	6.4817
Bottom	-6.5328	-6.5323	-6.5310	-6.5305
Gap	13.0168			13.0121
Taper				-0.0046

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
6.4833	-6.5319	13.0152	-0.0243

Additional Calculated Values

Bottom Pole #1 Z Value	979.775
Top Jaw Pitch (mrad)	-0.001
Bottom Jaw Pitch(mrad)	0.001
Minimum Effective Gap	12.974
Reference Block Gap	6.806

Dimensions in mm

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METROLOGY

LCLS II - SXR Undulator
Nominal Gap = 13   Nominal Taper = 0.000
Gap Reading = 13.0001   US Encoder = 13.0001   DS Encoder = 13.0001

19-JUL-2018
S/N = 013
D/S= 0001
Run= 11