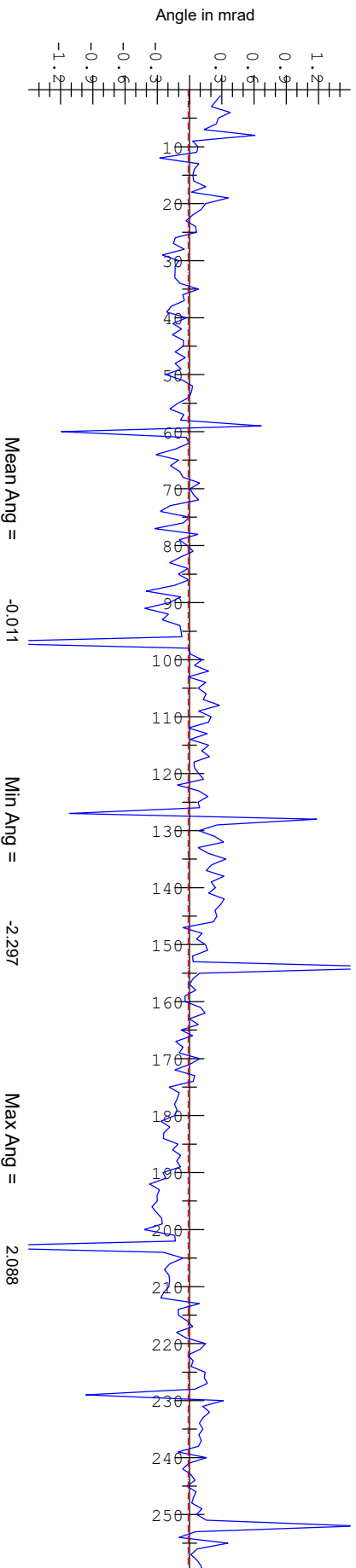



### Included Angle Between Pole Tips

Pole Tip Num. ----->

### Angle of Symmetry Line between Pole Tips to Tuning Gap ZX Plane



Dimensions in MM, Angles in Milliradians

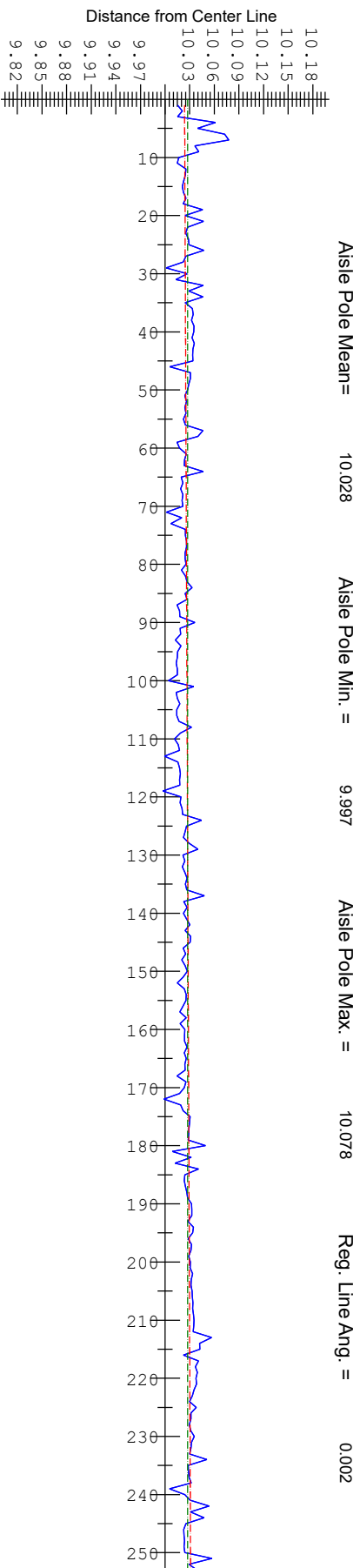


**NATIONAL ACCELERATOR LABORATORY**  
**METROLOGY**

## HGVPU - Pole Tip Angles

Nominal Gap :	20.000	US Full :	20.0000	DS Full :	20.0003
Nom. Taper :	0.000	US Wall Half :	9.9916	DS Wall Half :	9.9915
		US Aisle Half :	9.9909	DS Aisle Half :	9.9926

<b>S/N</b>	: HXU 032
<b>Date</b>	: 18-AUG-2020
<b>Data Set</b>	: 0001
<b>Run</b>	: FINAL
<b>Cam Pos.</b>	: B



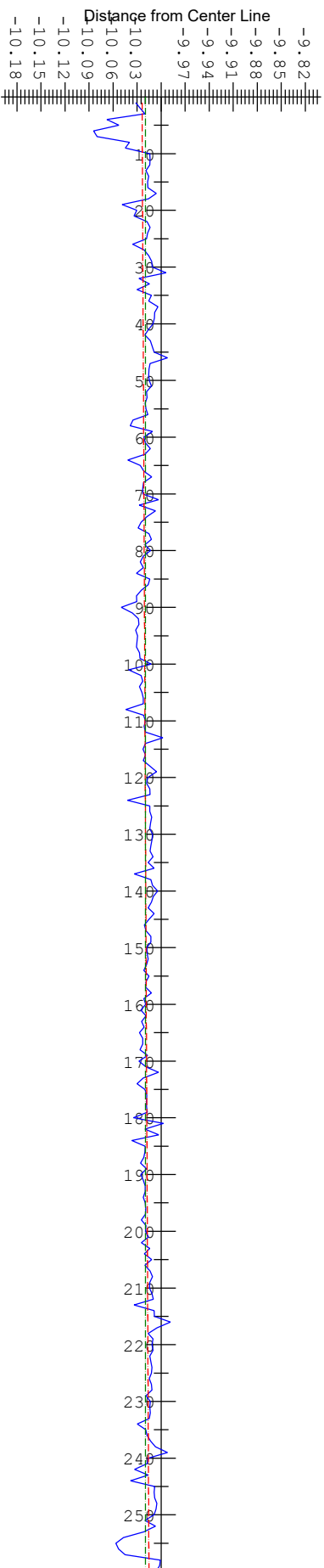
Pole Tip Num. ----->

### Aisle Pole Tips at Nom. Beam Height

Blue = Pole Tip points  
Green = Mean line  
Red = Regression line thru points

Minimum Clearance Gap = 19.977

### Wall Pole Tips at Nom. Beam Height



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



### HGVPU - Pole Tip Location from Girder Centerline

Nominal Gap :	20.000	US Full :	20.0000	DS Full :	20.0003
Nom. Taper :	0.000	US Wall Half :	9.9916	DS Wall Half :	9.9915
		US Aisle Half :	9.9909	DS Aisle Half :	9.9926

S/N	: HXU_032
Date	: 18-AUG-2020
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B

**Values Calculated from Regression Line End Points**

Dimension	X Value	Y Value	Z Value	Calc. Value
US Aisle Pole Tip(1)	10.024	0.000	8.750	
US Wall Pole Tip(1)	-10.024	0.000	8.750	
US Sym. Pt.	0.000			
US Gap				20.048
DS Aisle Pole Tip(260)	10.031	0.000	3375.750	
DS Wall Pole Tip(260)	-10.015	0.000	3375.750	
DS Sym. Pt.	0.008			
DS Gap				20.047
Taper				-0.001

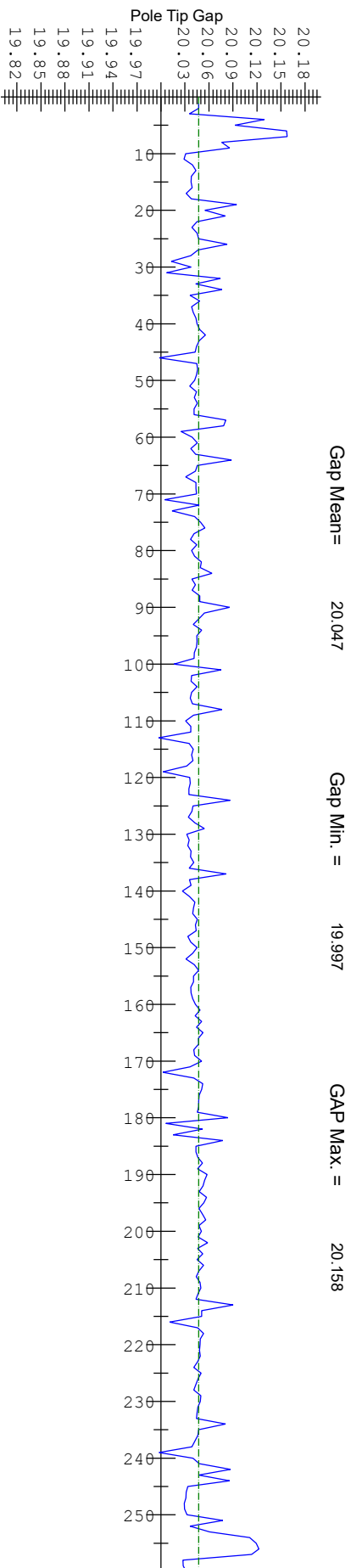
Dimensions in MM



**HGVPU - Gap Calc. from Regression Line End Points**

Nominal Gap :	20.000	US Full :	20.0000	DS Full :	20.0003
US Wall Half :	9.9916	US Wall Half :	9.9916	DS Wall Half :	9.9915
US Aisle Half :	9.9909	US Aisle Half :	9.9909	DS Aisle Half :	9.9926
Nom. Taper :	0.000				

S/N	: HXU_032
Date	: 18-AUG-2020
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B

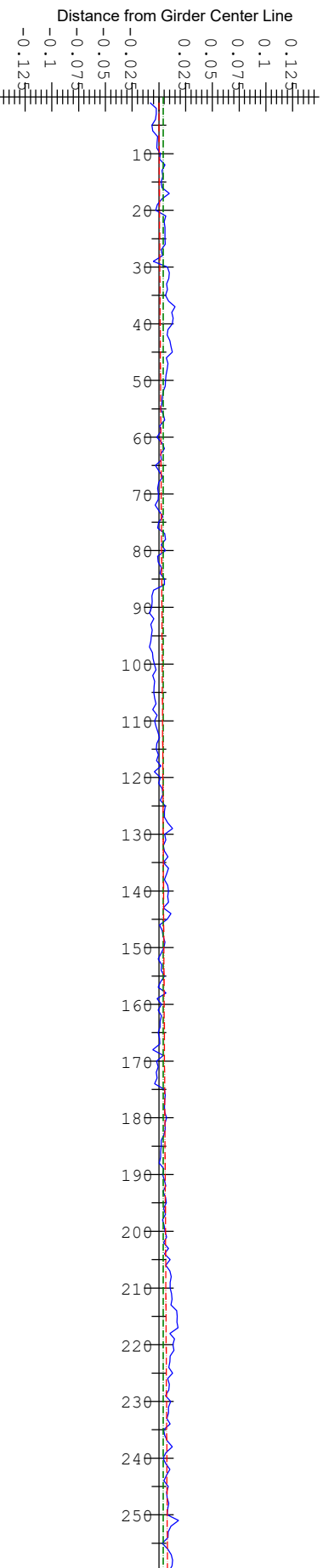


### Pole Tip Gap at Nom. Beam Height

Pole Tip Num. ----->

Blue = Pole Tip points  
 Green = Mean line  
 Red = Regression line thru points

### Pole Tip Symmetry Point at Nom. Beam Height



### Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians

**SLAC**  
NATIONAL ACCELERATOR LABORATORY  
METROLOGY

## HGVPU - Pole Tip Gap and Symmetry Point Location

Nominal Gap : 20.000      US Full : 20.0000      DS Full : 20.0003

Nom. Taper : 0.000      US Wall Half : 9.9916      DS Wall Half : 9.9915

US Aisle Half : 9.9909      DS Aisle Half : 9.9926

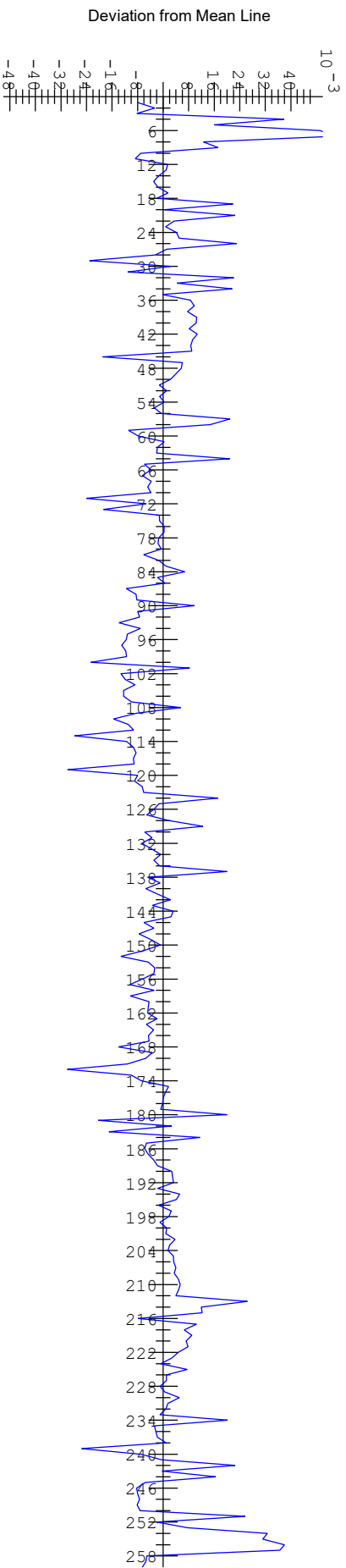
S/N : HXU\_032

Date : 18-AUG-2020

Data Set : 0001

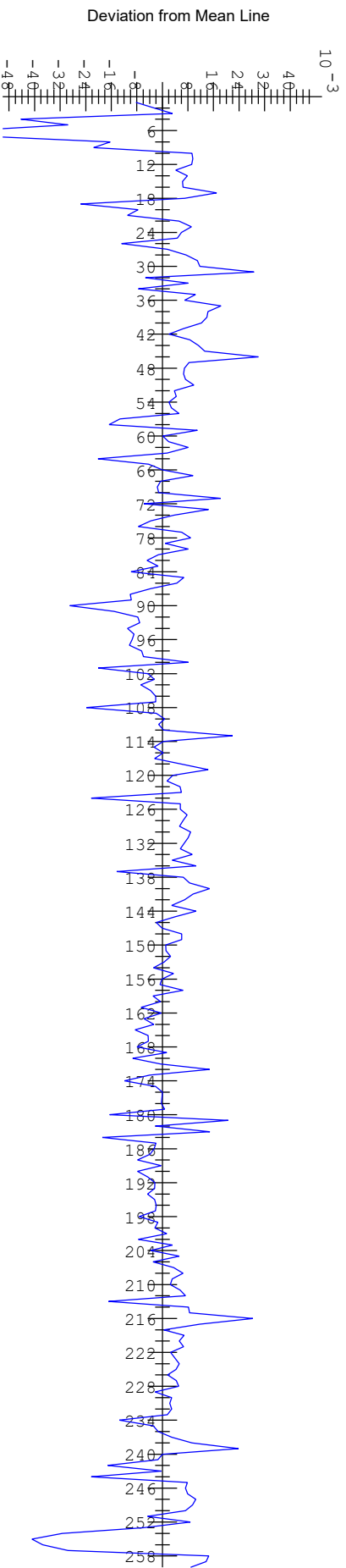
Run : FINAL

Cam Pos. : B



### Aisle Pole Tips

### Wall Pole Tips



## Pole Tip Deviations from Jaw Mean Lines when aligned to actual Gap Sym. Plane

Dimensions in MM



## HGVPU - Pole Tip Deviation from Mean Line

Nominal Gap :	20.000	US Full :	20.0000	DS Full :	20.0003
Nom. Taper :	0.000	US Wall Half :	9.9916	DS Wall Half :	9.9915
		US Aisle Half :	9.9909	DS Aisle Half :	9.9926

S/N	: HXU_032
Date	: 18-AUG-2020
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B