

CSPad alignment after run 3, cxi80410-r0628

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About this version of CSPad alignment

- Sensors in quads are aligned individually (see [CSPad Alignment of quads for cxi80410-r0628](#)) using their natural coordinates as from the optical measurement (top-left corner is an origin, nearest point to the beam spot).
- Quads are rotated and inserted in uniform 2-D array with appropriate offsets.

Earlier versions of CSPad alignment

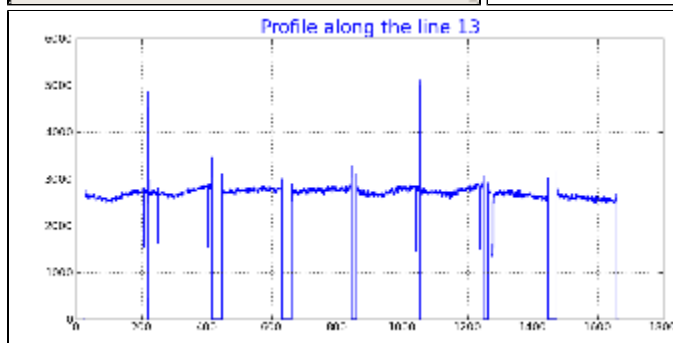
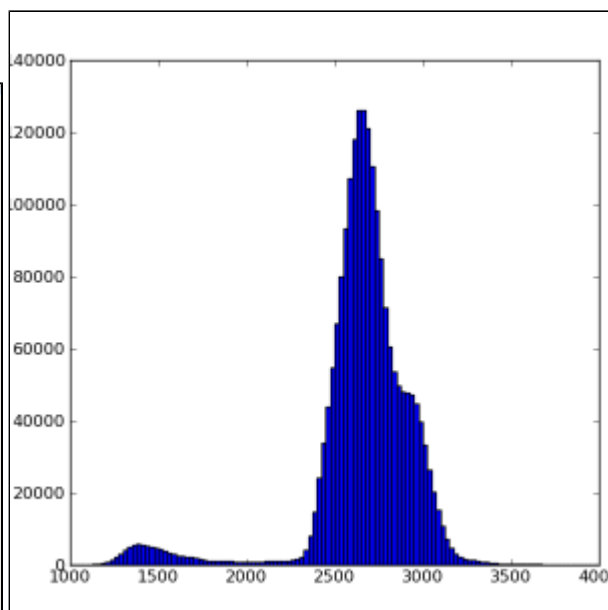
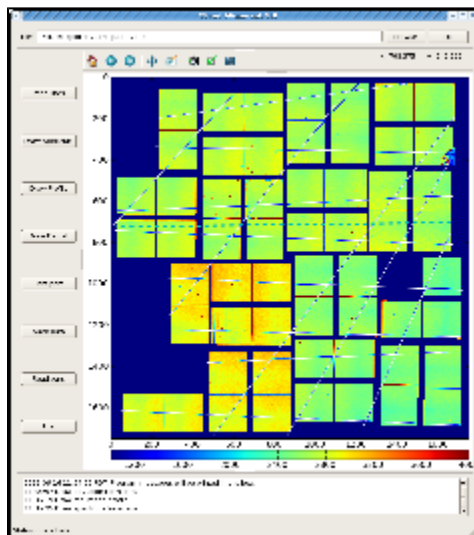
[CSPad Alignment - v2011-05-25](#)

[CSPad Alignment of quads - v2011-06-14](#)

[CSPad Alignment of quads for cxi80410-r0628](#)

Alignment tool

- Takes image of CSPad or quad from 2-D array
- Draw lines along the wire shadows
- Interactively adjust lines along the wire shadows
- Plots:
 - image
 - image profile
 - deviation of the shadow "center of gravity" from line along the line



Alignment parameters

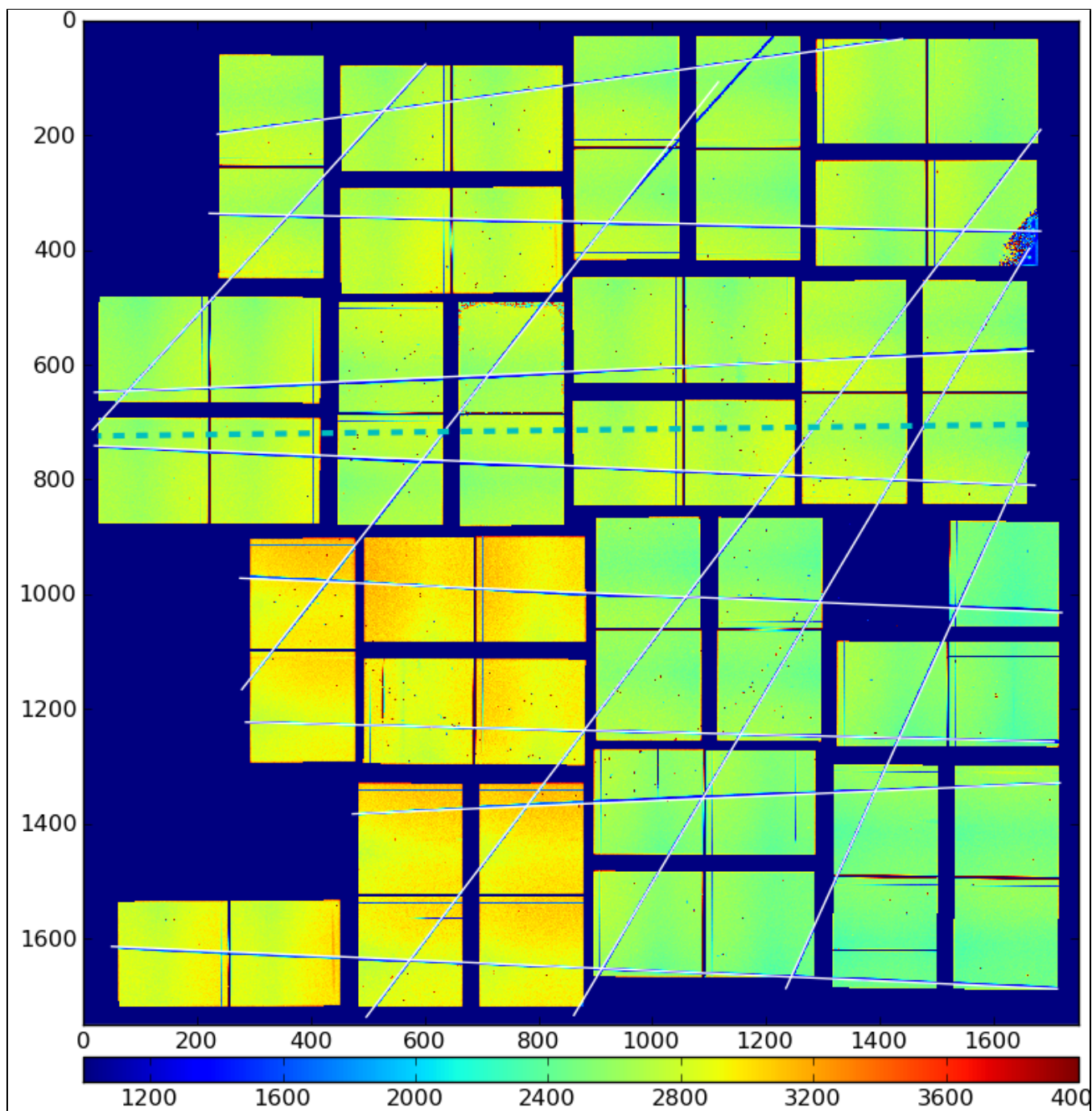
[2011-05-25 CSPad alignment parameters](#)

Alignment of sensors in quads

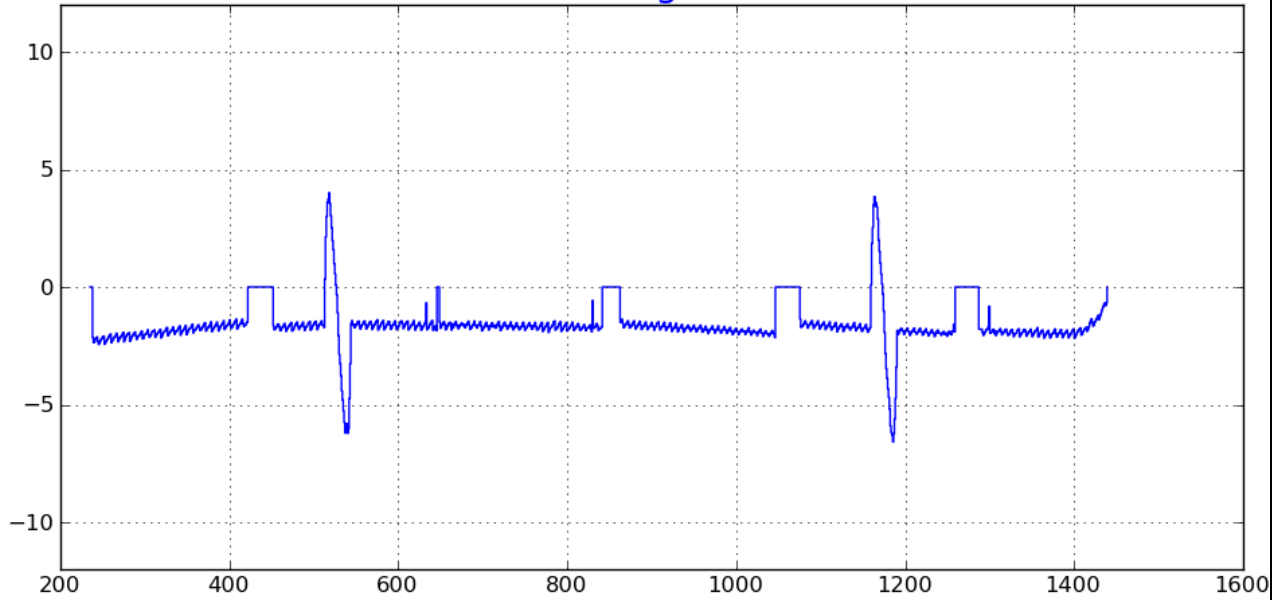
See [CSPad Alignment of quads for cxi80410-r0628](#) for sensor position parameters in quads.

Deviation of the wire shadows from lines

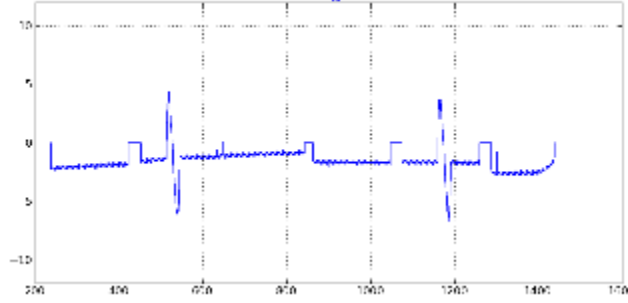
Large plots are for tilted ASICs, icons for non-tilted.



Deviation histogram for line 0

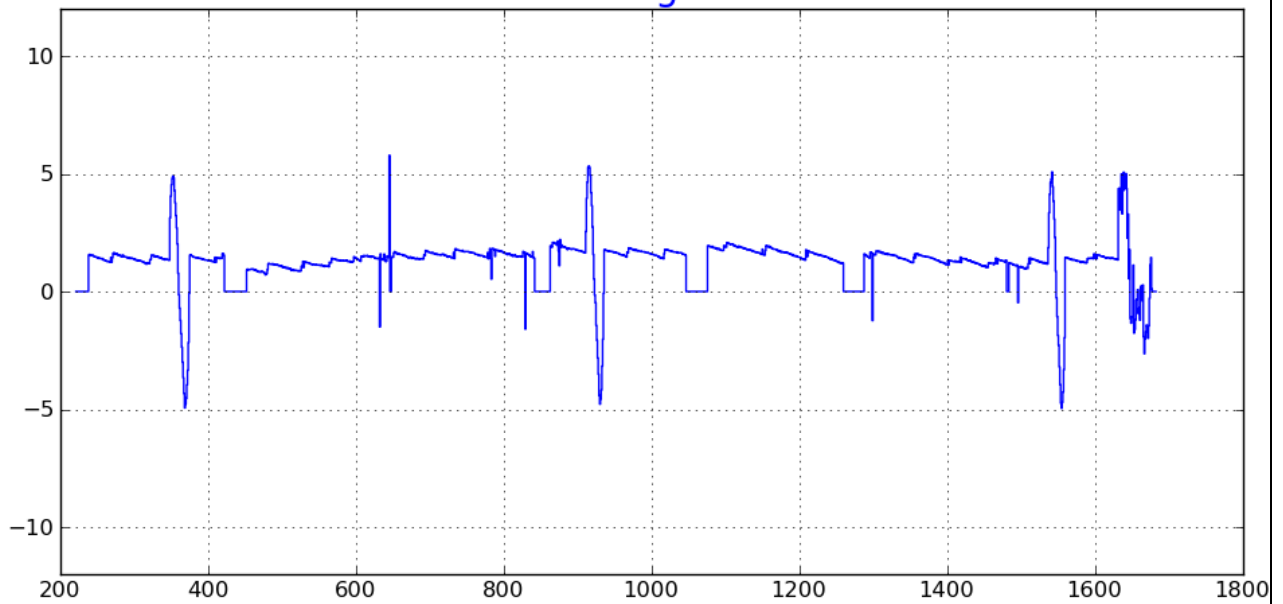


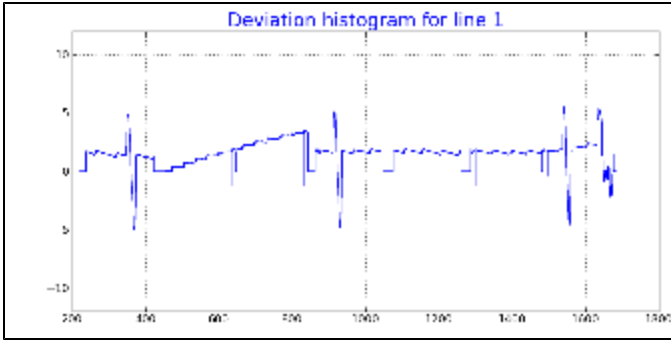
Deviation histogram for line 0



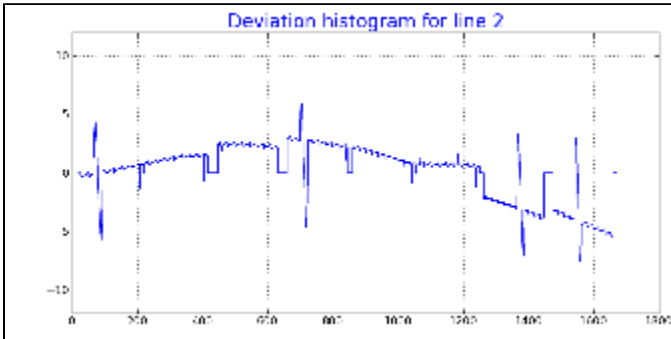
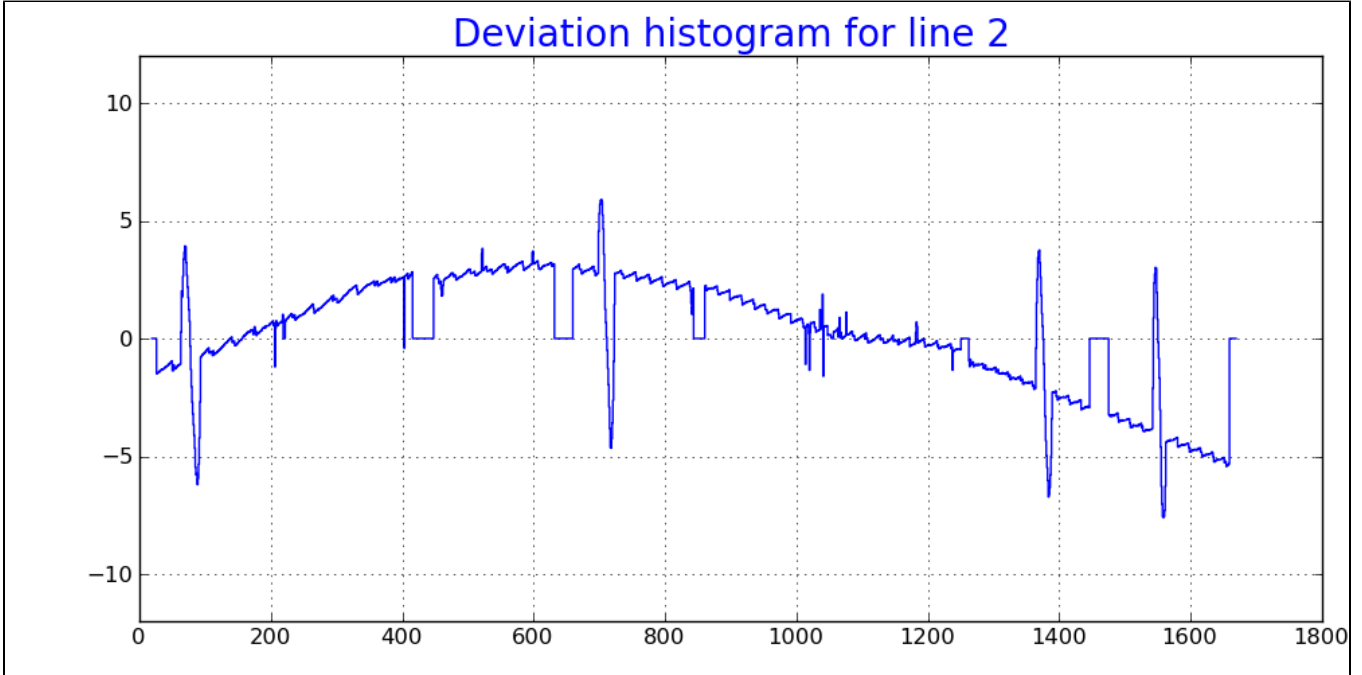
- non-tilted ASICs

Deviation histogram for line 1



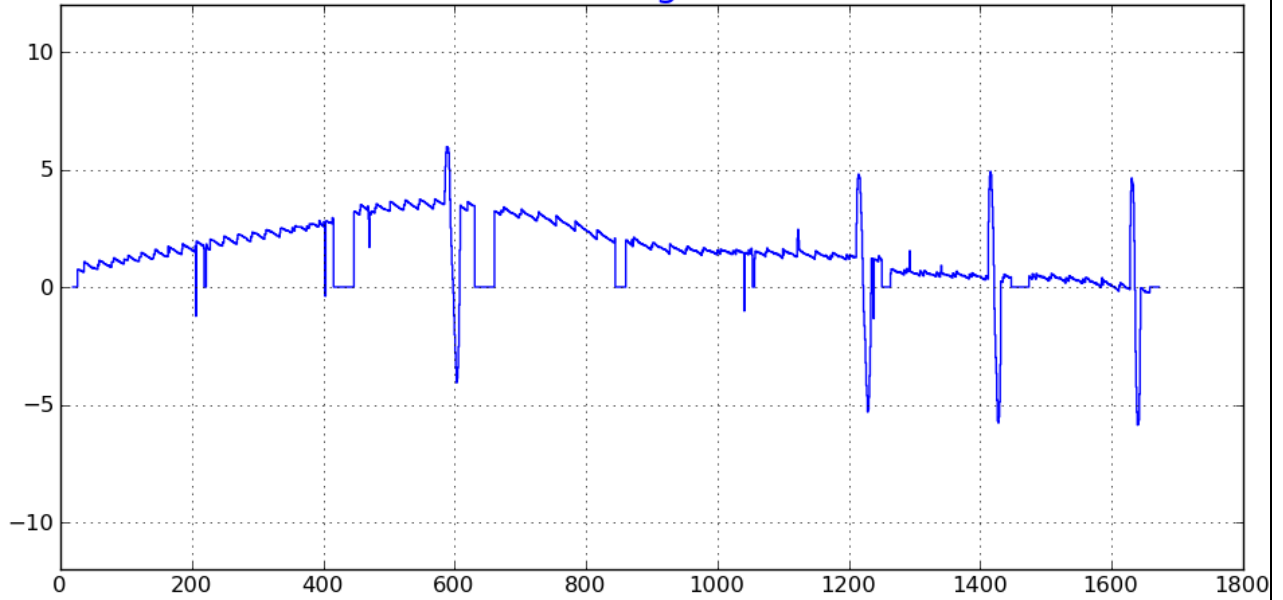


- non-tilted ASICs

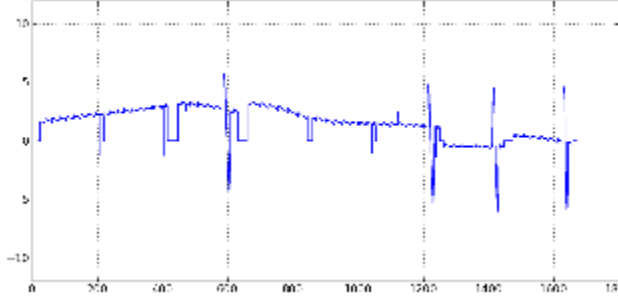


- non-tilted ASICs

Deviation histogram for line 3

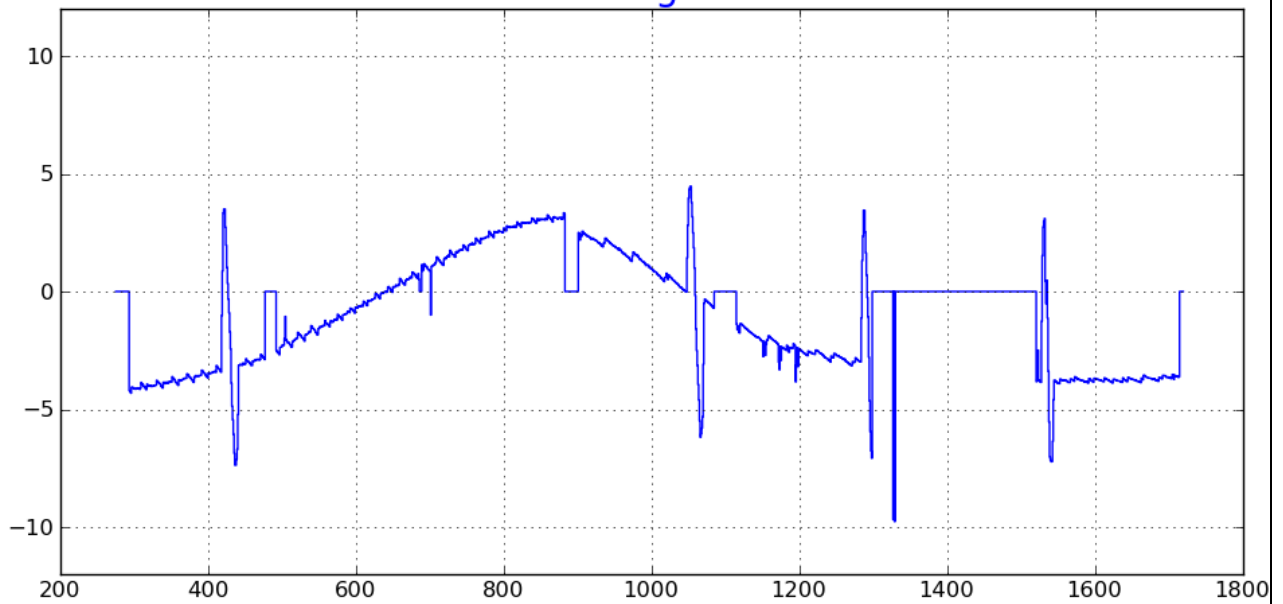


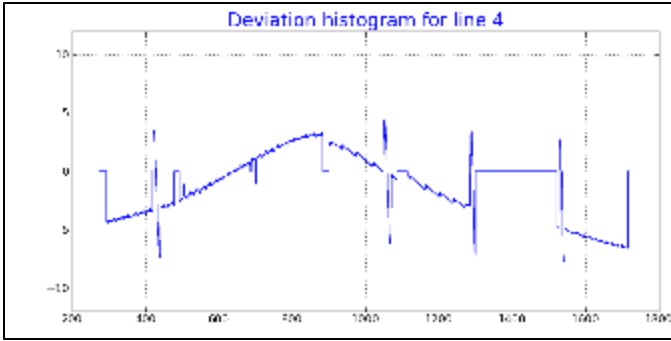
Deviation histogram for line 3



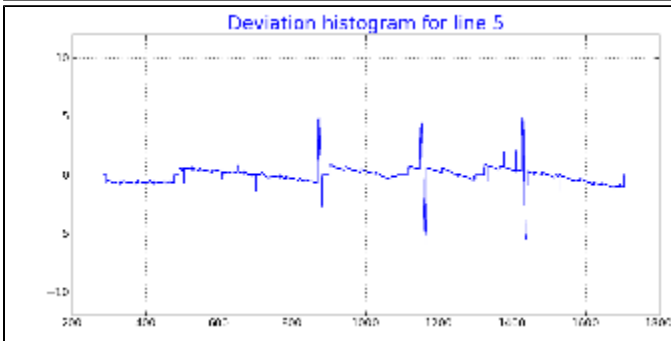
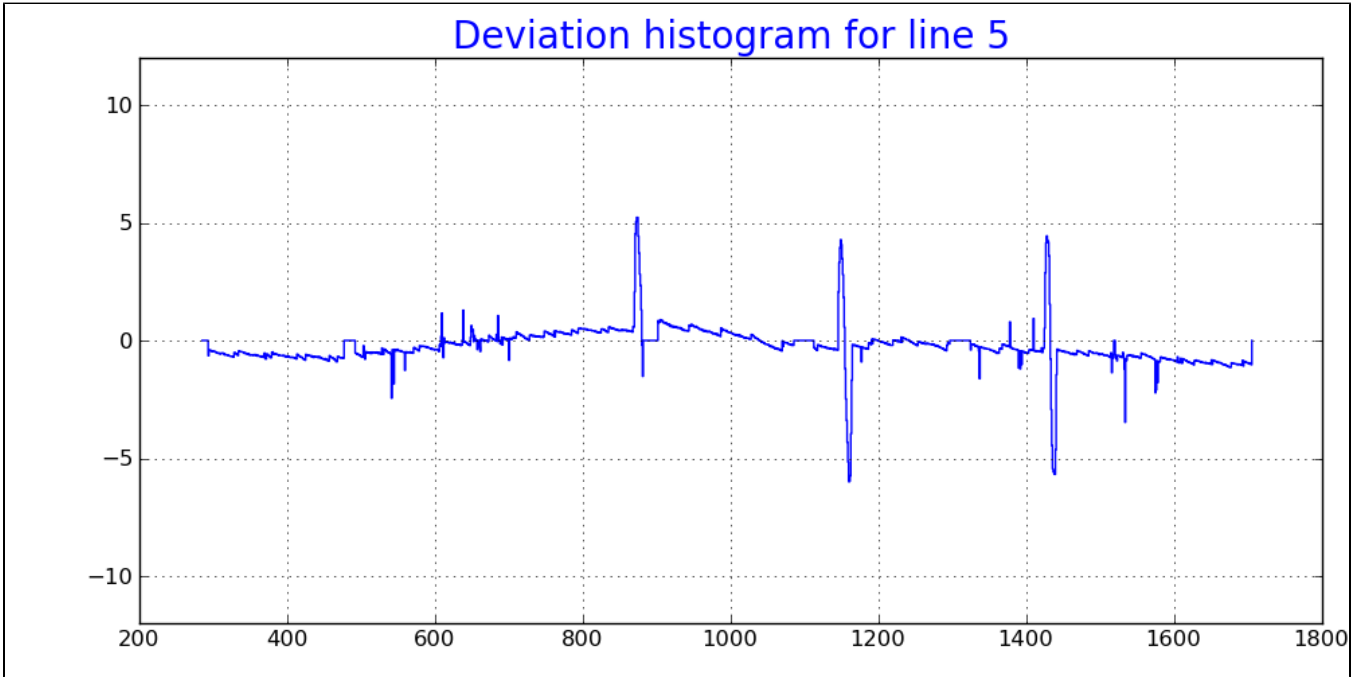
- non-tilted ASICs

Deviation histogram for line 4



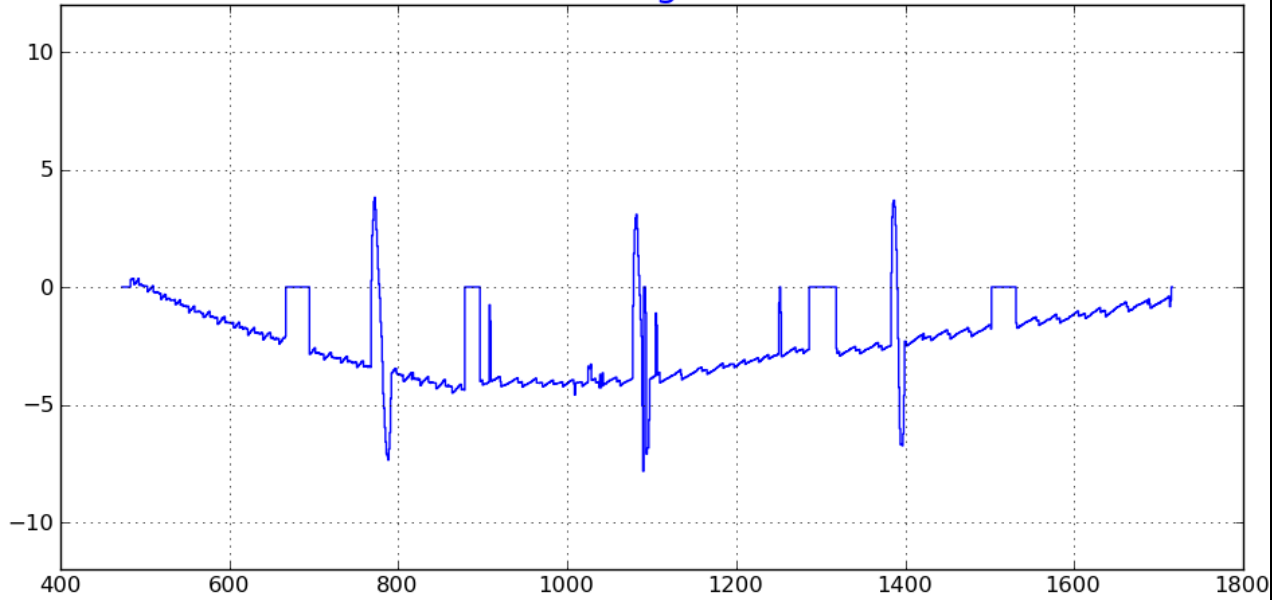


- non-tilted ASICs

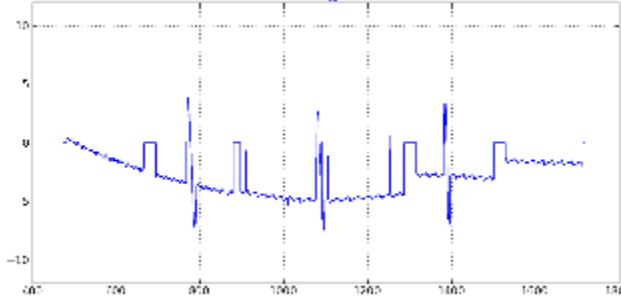


- non-tilted ASICs

Deviation histogram for line 6

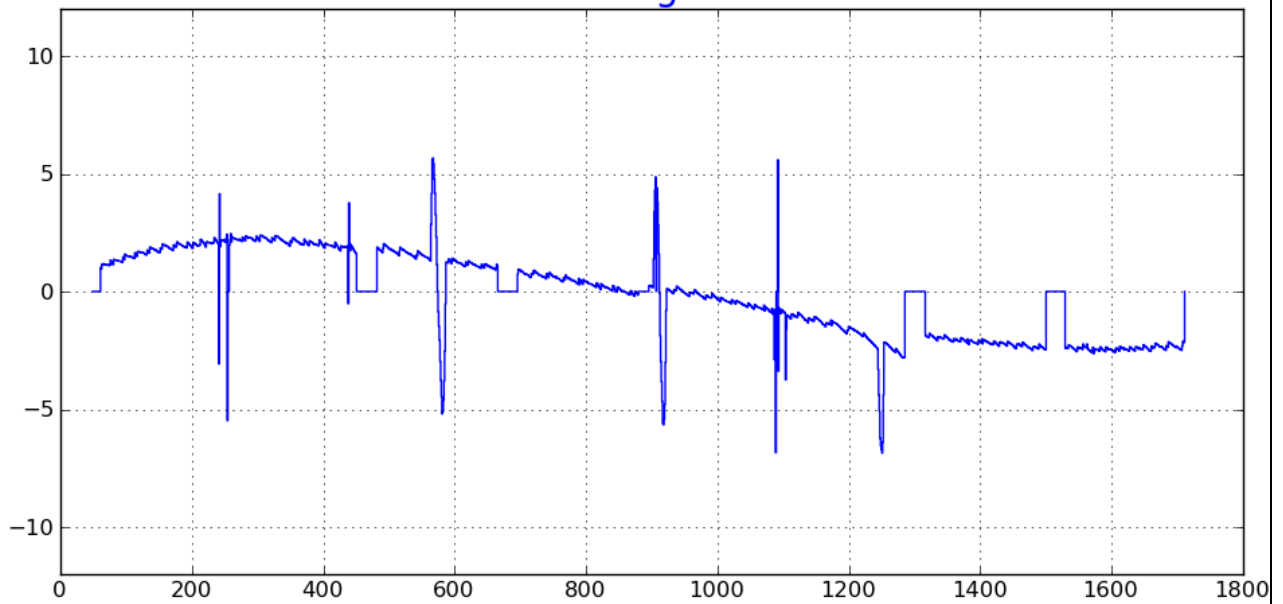


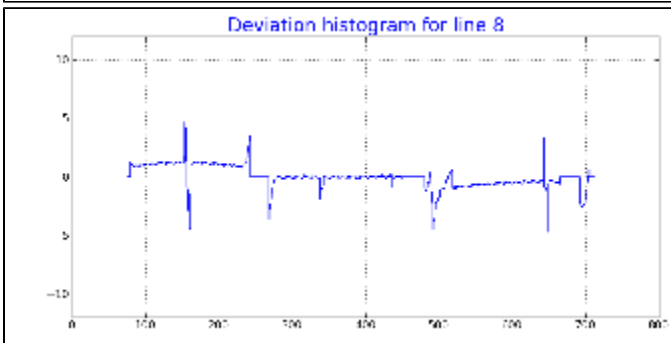
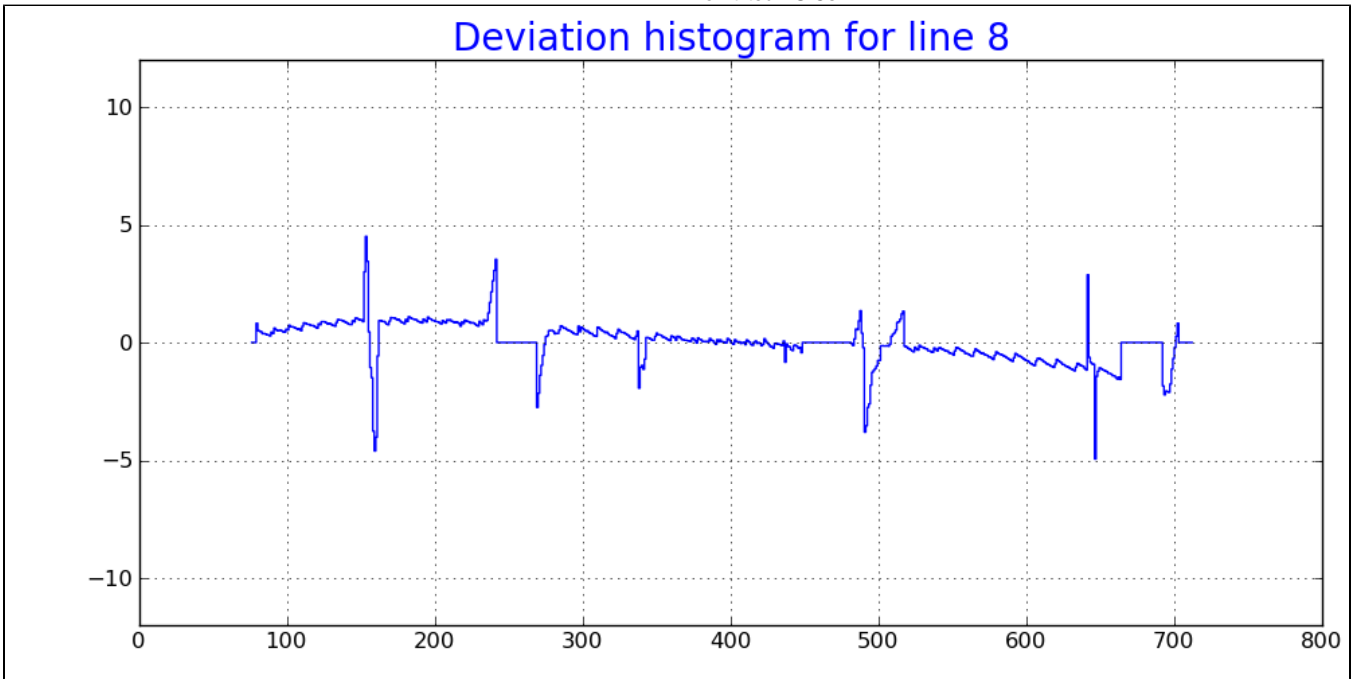
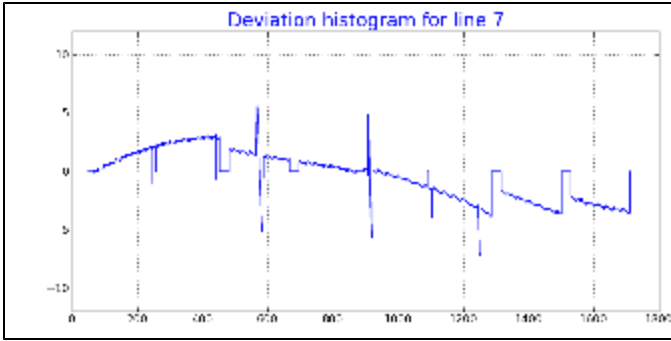
Deviation histogram for line 6



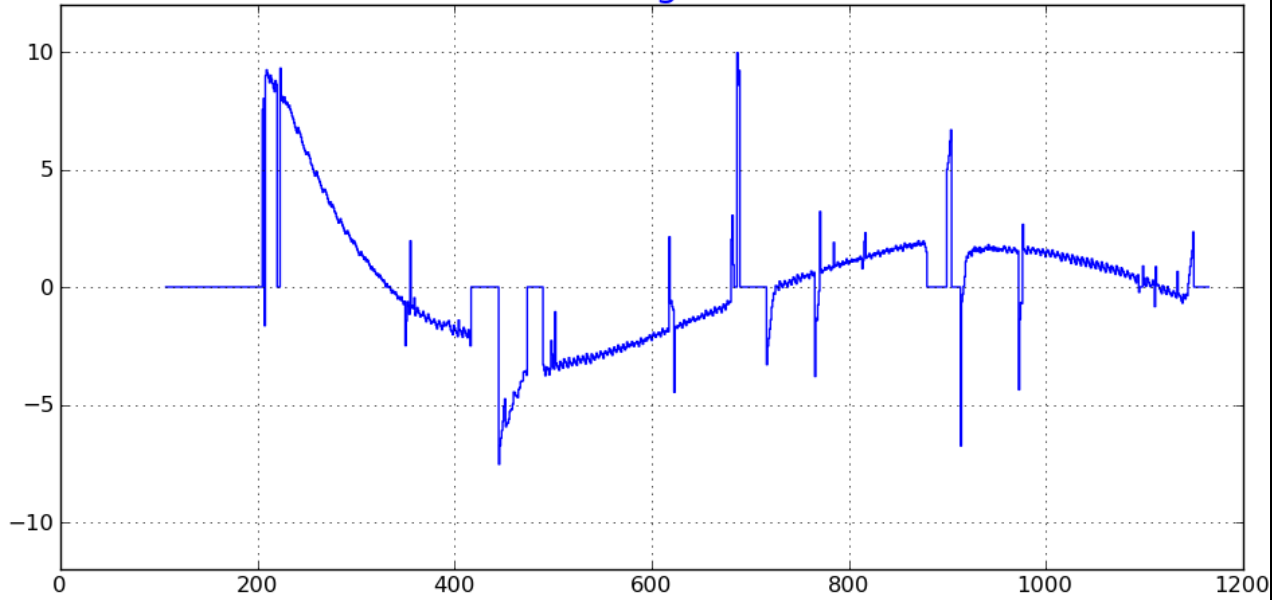
- non-tilted ASICs

Deviation histogram for line 7

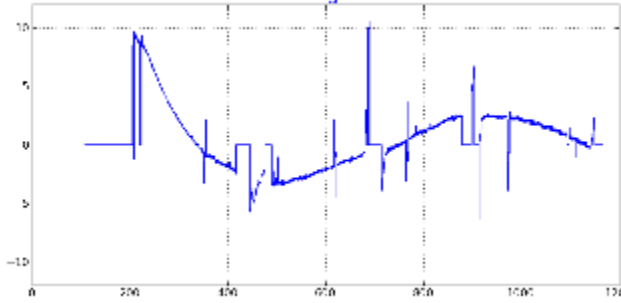




Deviation histogram for line 9

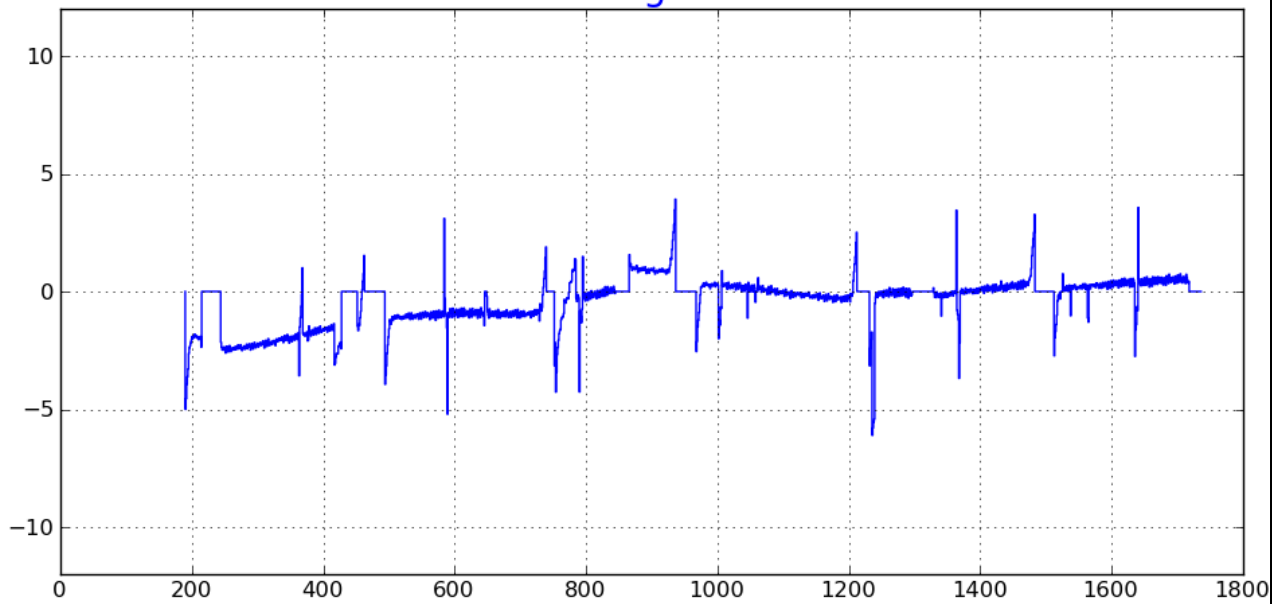


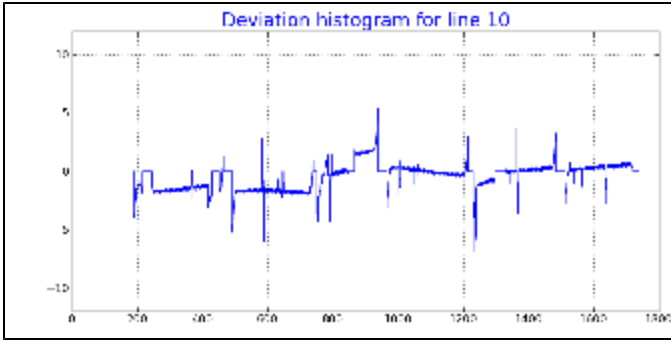
Deviation histogram for line 9



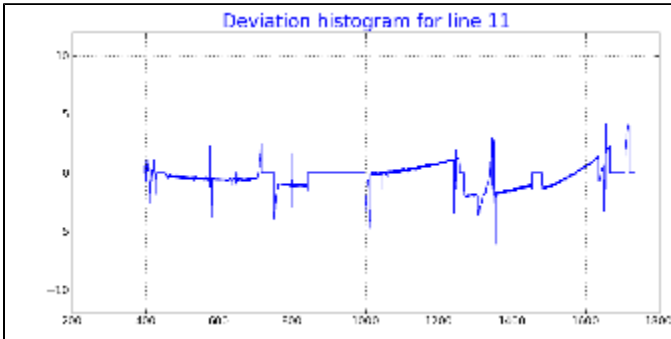
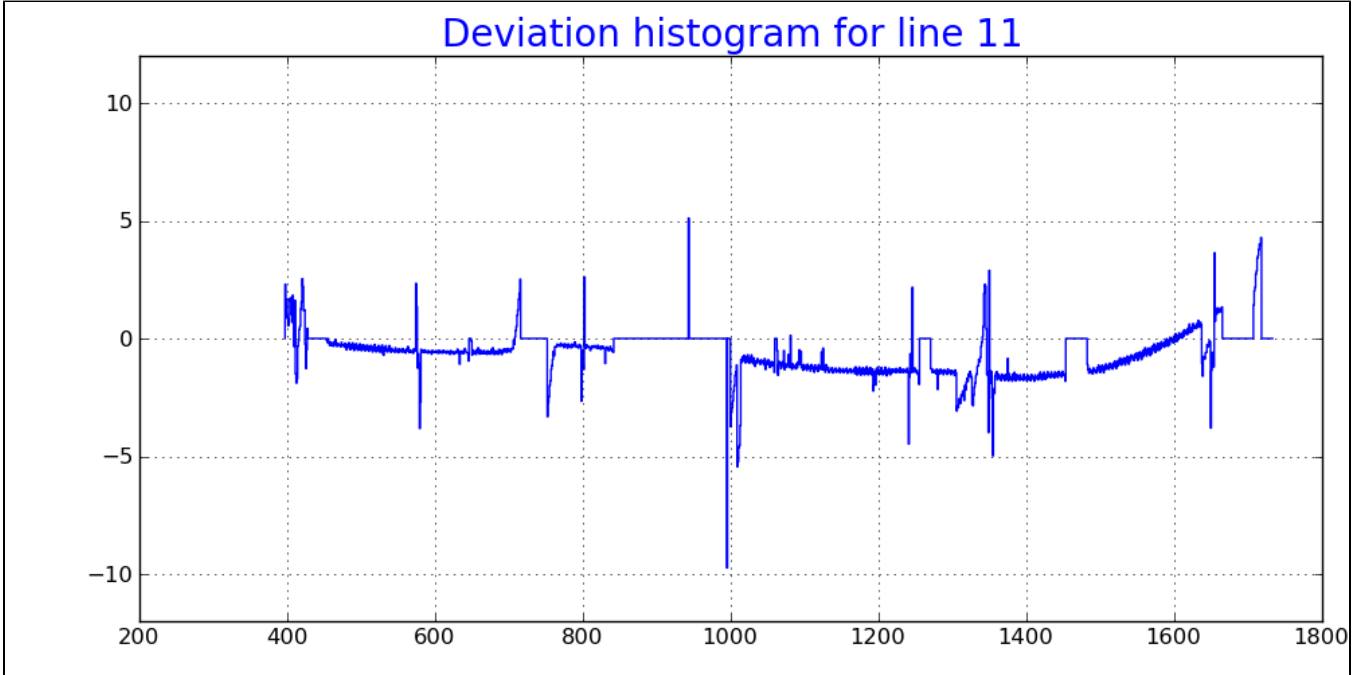
- non-tilted ASICs

Deviation histogram for line 10



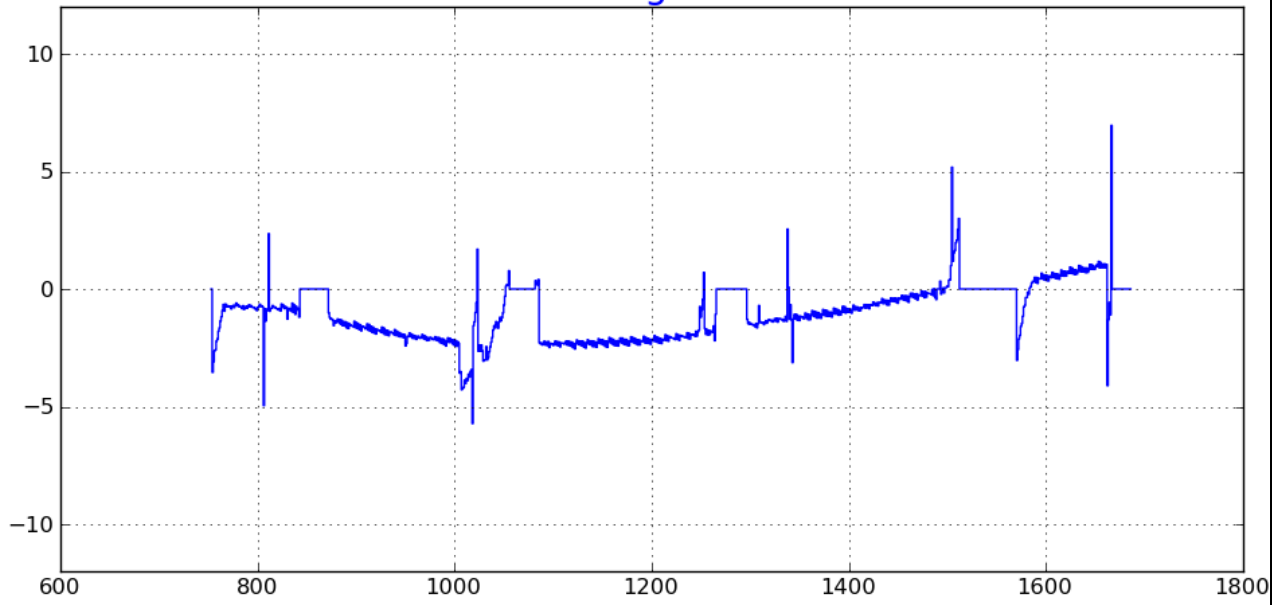


- non-tilted ASICs

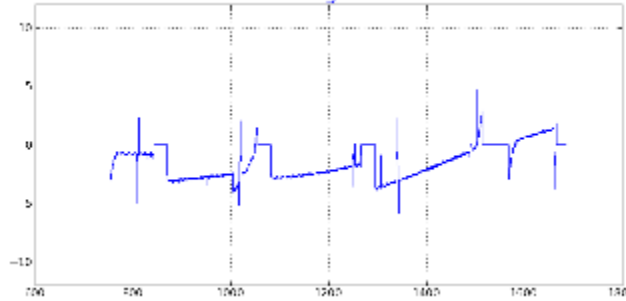


- non-tilted ASICs

Deviation histogram for line 12



Deviation histogram for line 12



- non-tilted ASICs