



中国科学院高能物理研究所
Institute of High Energy Physics Chinese Academy of Sciences

Beta source test for TaichuPix3 FLEX BOARD

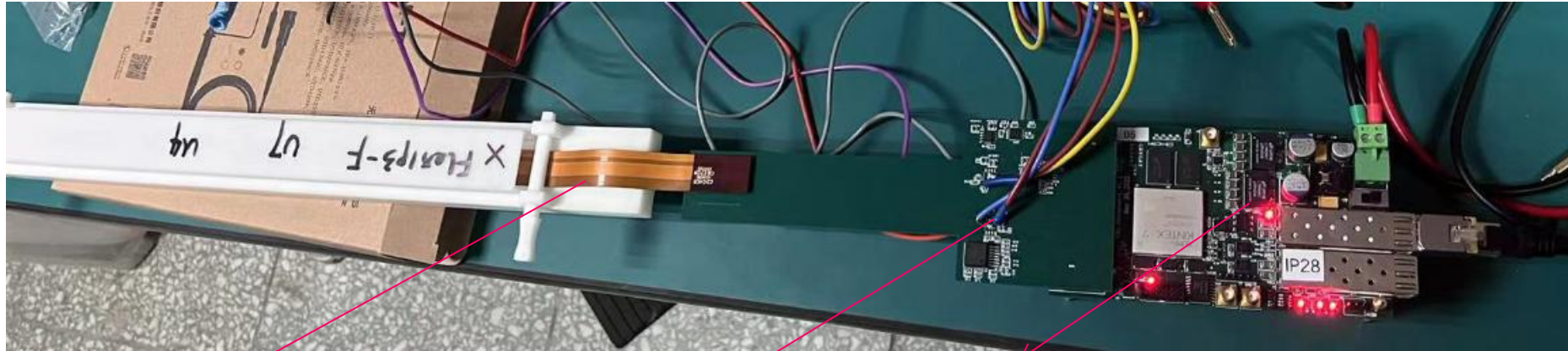
Tianya Wu
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2023.02.09



Circular Electron Positron Collider



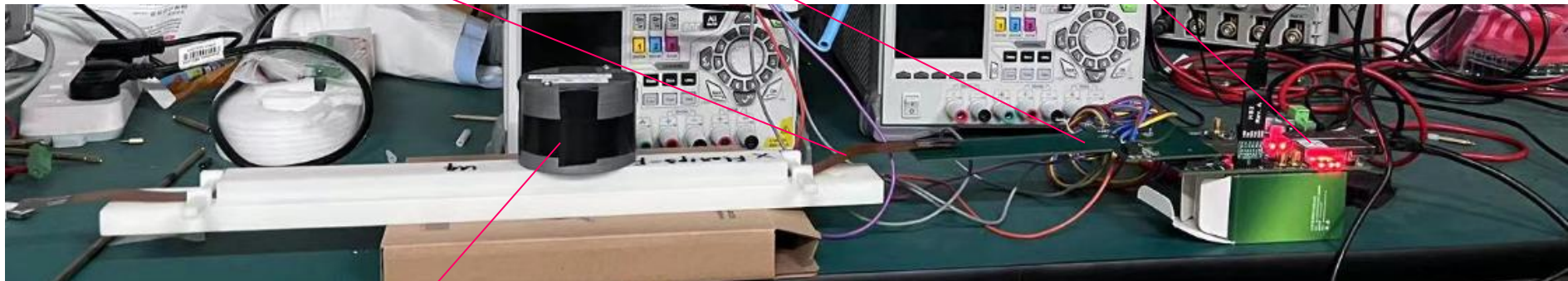
Setup



flex with TaichuPix3

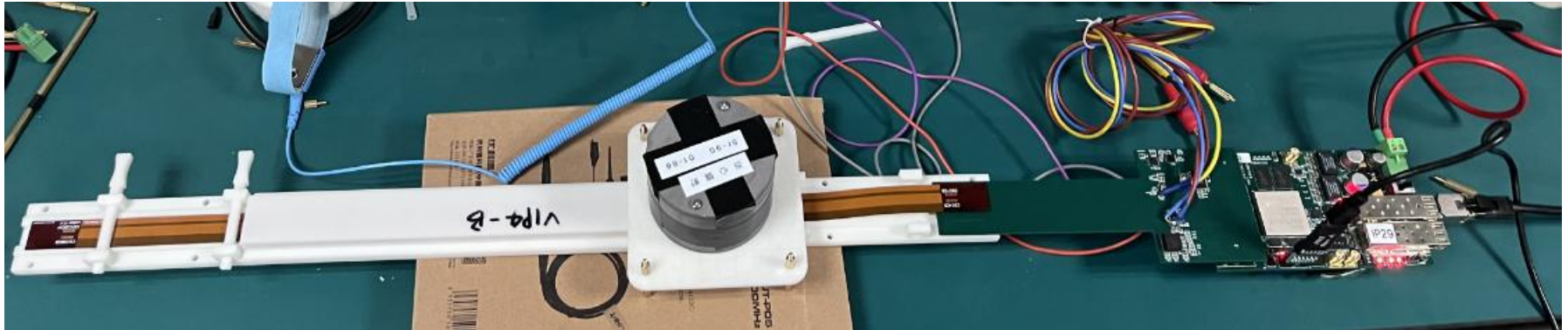
Interposer adapter board

FPGA board

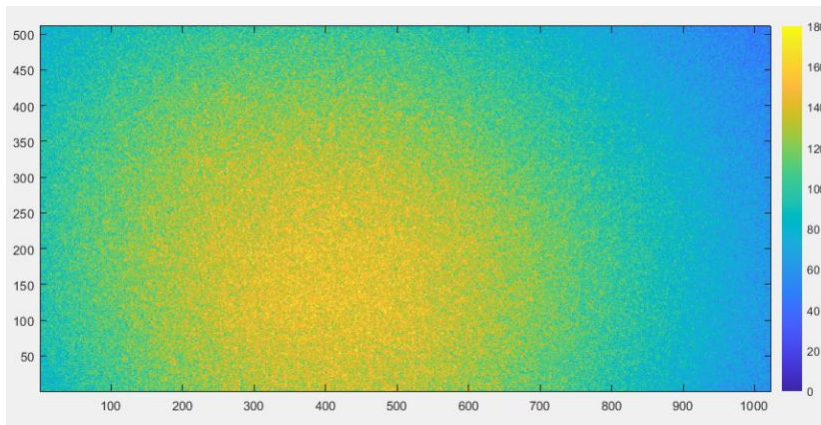


^{90}Sr ; 54M Bq;
place above flex directly

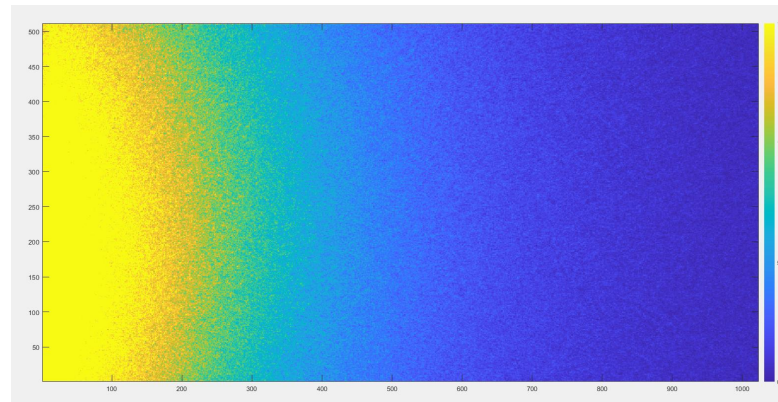
Test for two chips on V1P4-B



- ITHR = 96; Power condition: 1.8V/0.208A; 1.8V/0.073A; 12V/0.309 ; Data taking for 10min; CLK=15.625MHz



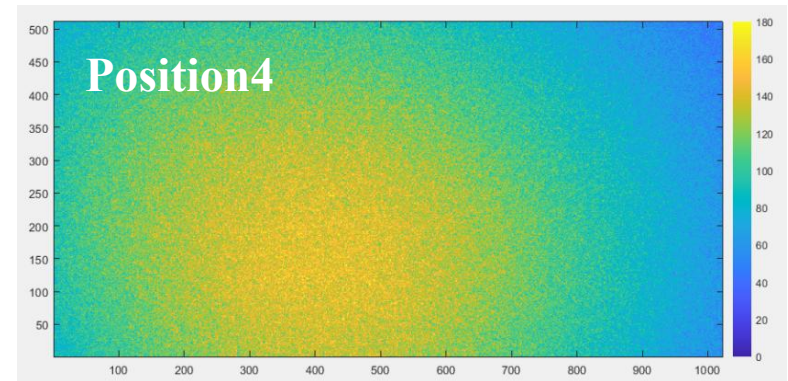
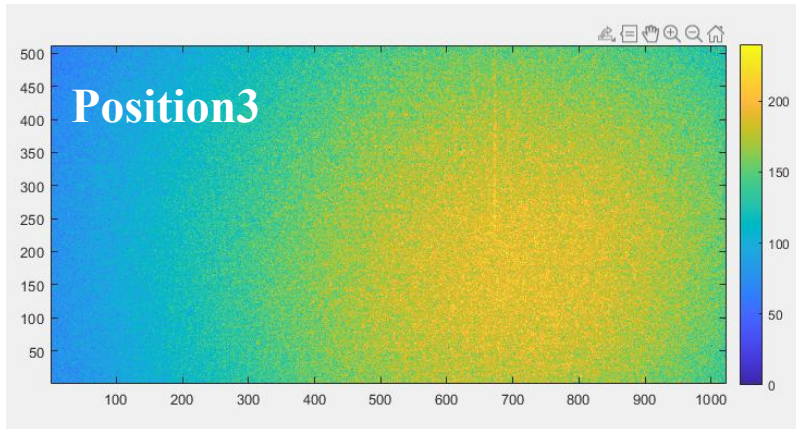
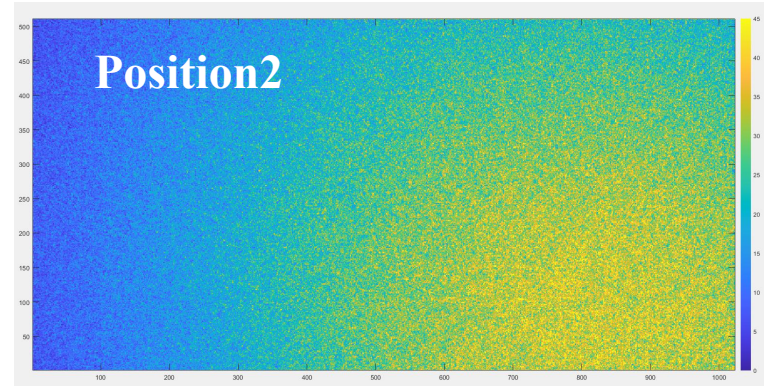
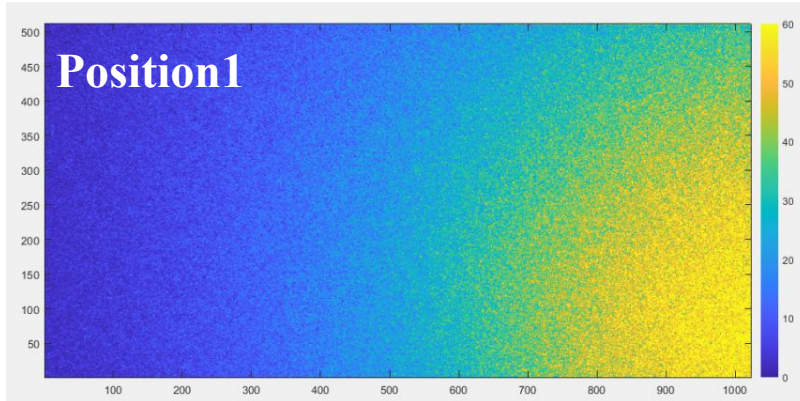
Chip U10



Chip U9



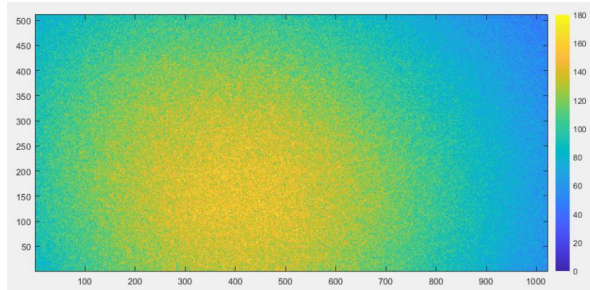
U10 Position changes



- data taking with DAQ
- Remove repeating data
- The shape is moving by different position

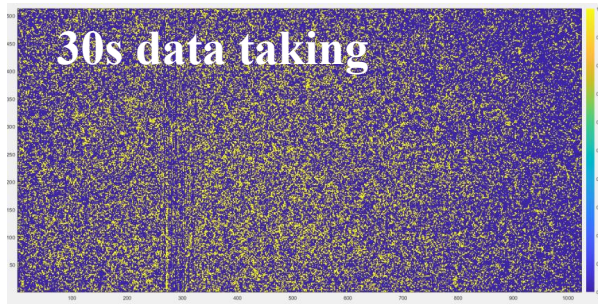


U10 condition difference

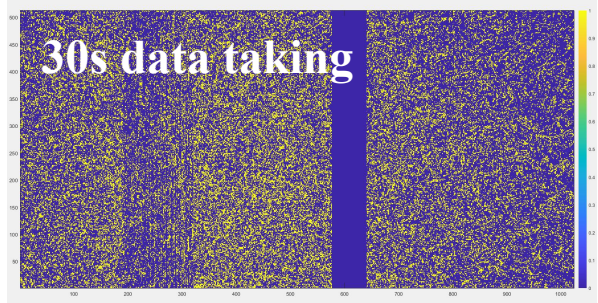


First 10 min data taking

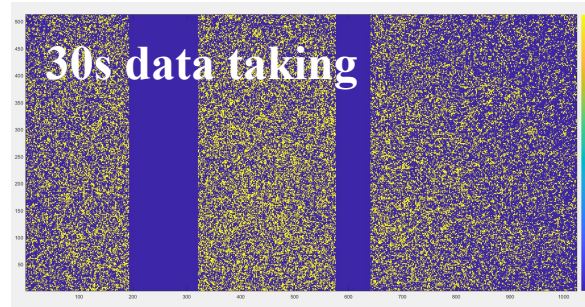
↓ ~30min later



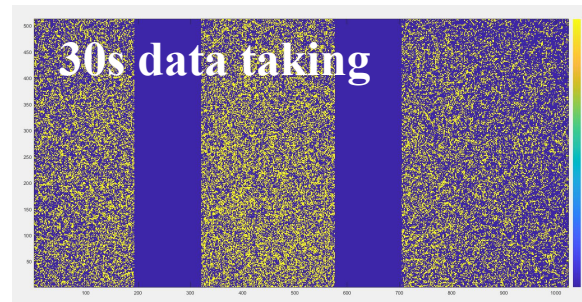
↓ ~5min later



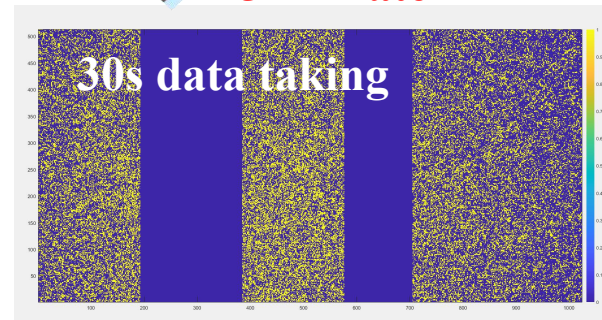
↓ ~5min later



↓ ~5min later



↓ ~5min later



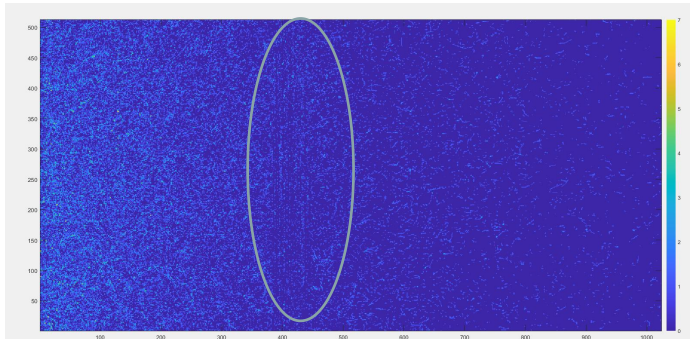
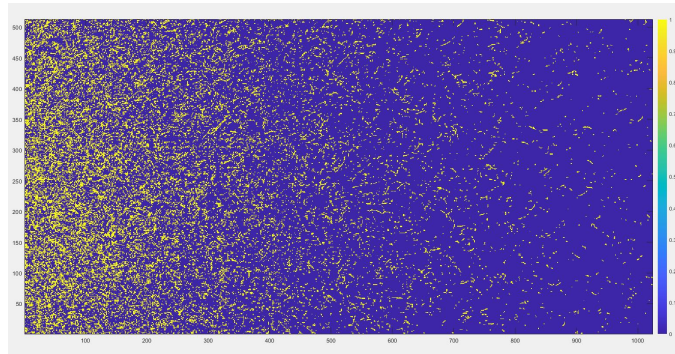
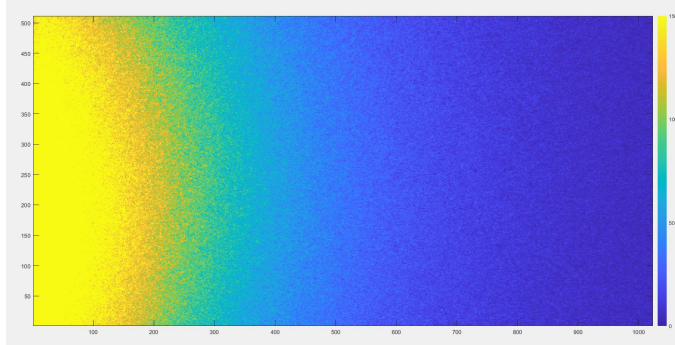
Keep this status more than 20 min

- The Sr-90 was placed above the U10
- Data rate from DAQ is around 4MB/s
- Everything was setup, and capture 30s data to draw hitmap after a while.
- Reconfig the chip, everything goes back normally

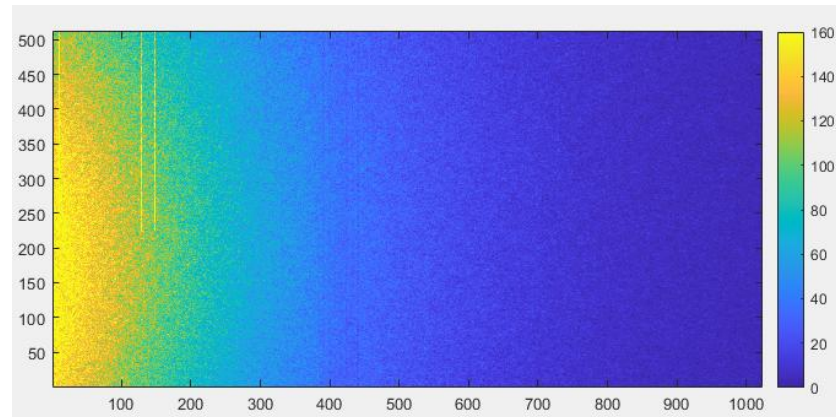




U9 condition difference



- The U9 is next to the U10
- Data rate from DAQ is around 500KB/s
- Everything was setup, and capture 30s data to draw hitmap after a while.
- After 30 min, no big region difference, but with several wired clumnn





Thanks for your attention!

