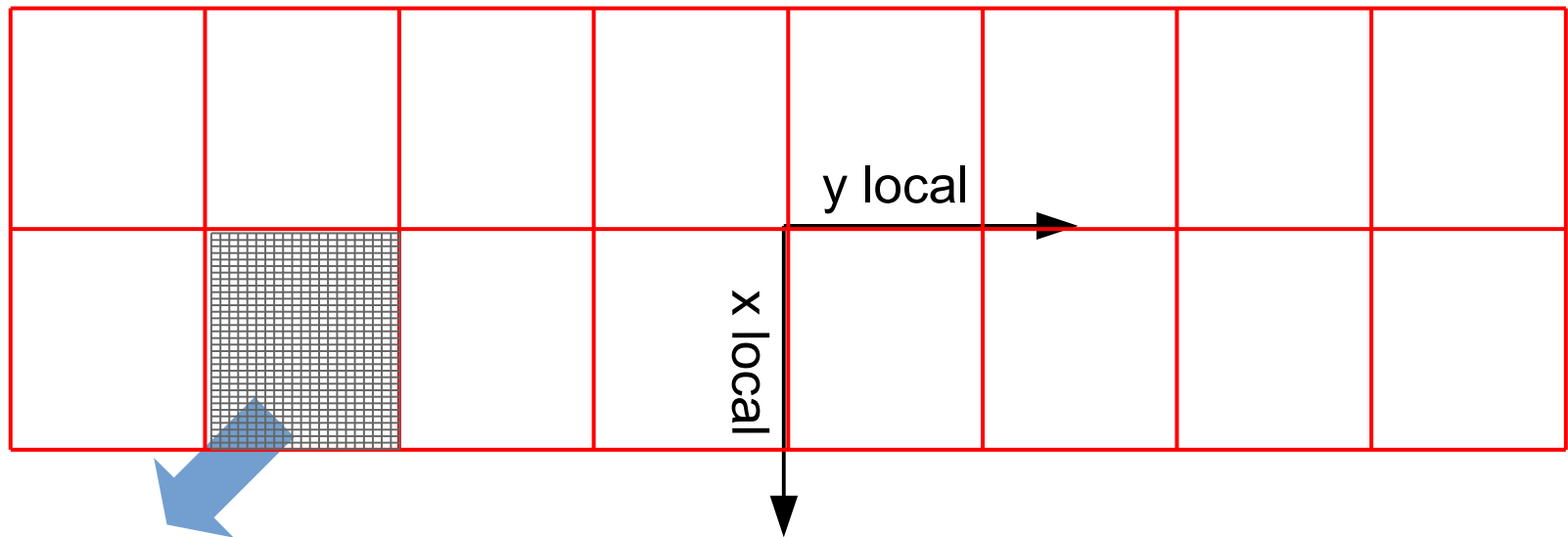


BPIX module (current detector)

ROC cols = 0...415

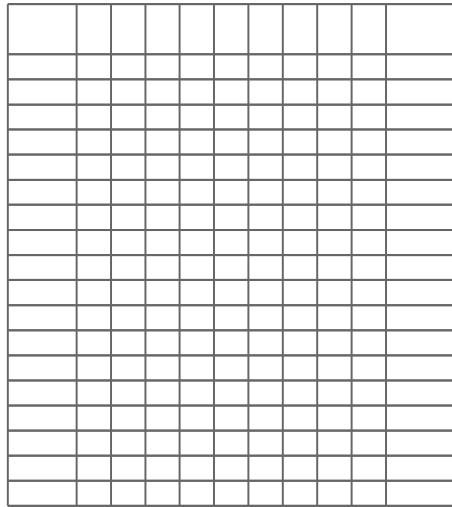


ROC rows = 0...159

$$300 + (50 \times 150) + 300 = 8100 \text{ } \mu\text{m}$$

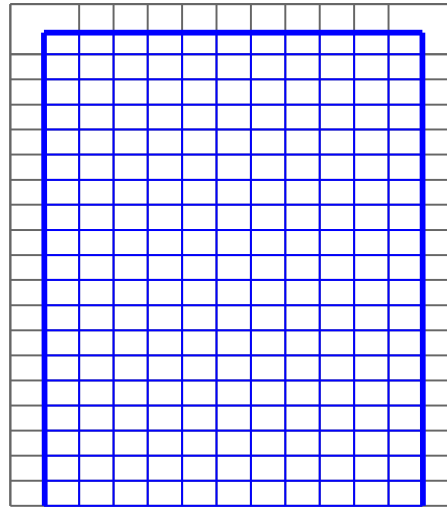
$$52 \times 150 = 7800 \text{ } \mu\text{m}$$

$$200 + (79 \times 100) = 8100 \text{ } \mu\text{m}$$

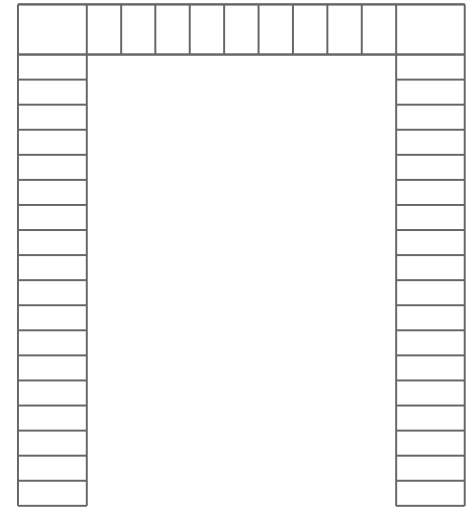


Si active $8100 \times 8100 \text{ } \mu\text{m}^2$

$$80 \times 100 = 8000 \text{ } \mu\text{m}$$



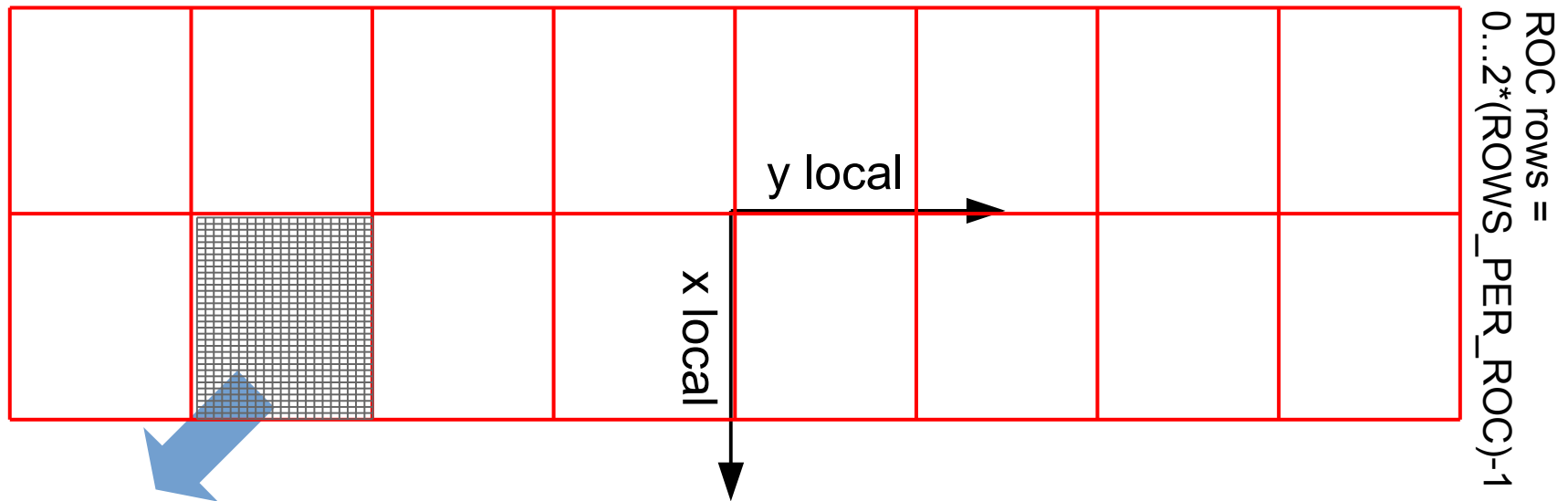
ROC active $7800 \times 8000 \text{ } \mu\text{m}^2$
(NB: ROC total $7900 \times 9800 \text{ } \mu\text{m}^2$)



"big pixels"

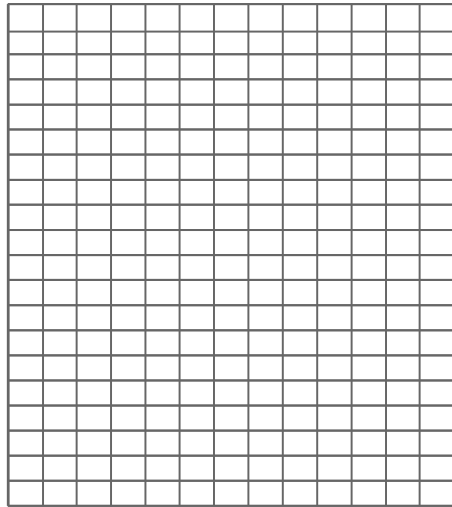
BPIX module (upgrade)

ROC cols = 0...(8*COLS_PER_ROC) -1

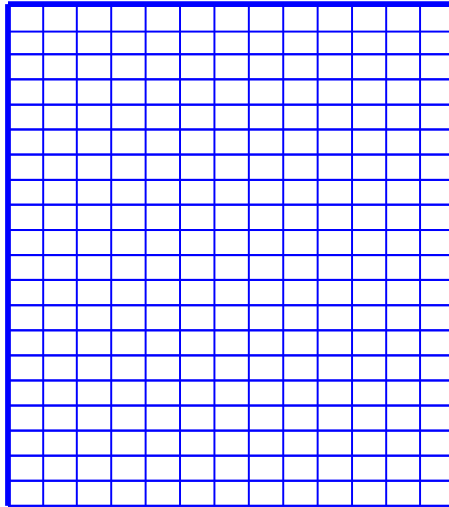


$\Delta y * COLS_PER_ROC = 8100 \text{ um}$

$\Delta x * ROWS_PER_ROC = 8100 \text{ um}$



Si active 8100x8100 um^2



ROC active 8100x8100 um^2

“no big pixels”

Current detector (100*150 um^2) when
`trackerGeometryConstants.upgradeGeometry`
`= cms.bool(True)`

- `ROWS_PER_ROC = 81`
- `COLS_PER_ROC = 54`