

Resources and Methodology for Cross Checking Tim Chart:

From the HallB run log (from [hps run wiki](#)) use the file **run10416_svt_end.pdf**
Confirm the direction of occupancy is correct

Use [2021 Module Production](#), Identify Half-Module and Verify Hybrid Plot
Then use relevant HM QA from below to cross-check with fingerprint

Additional resources for Identifying HMs an
[L4-L7 Half-Module List](#)
[Sho's L2-L4 half module list for QA](#)

Half module arrangement and Missing Data for quick reference

Layer	Bottom (S/A)	Top (S/A)
L3	7/3	5/8
L4	26/28	22/29
L5	5/6	2/3
L6	7/8	10/11
L7	15/14	9/4

Missing Data (Confluence pages are blank):

L5 Back Bottom: HM 6

L6 Front Bottom: HM 7

L6 Back Bottom: HM8

L7 Front Bottom: HM 15

L7 Back Top: HM 9

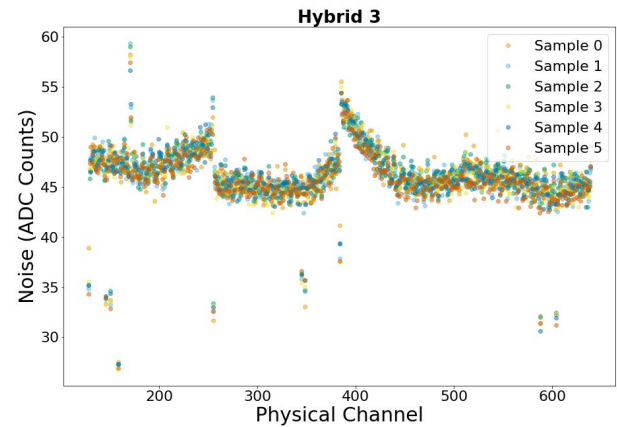
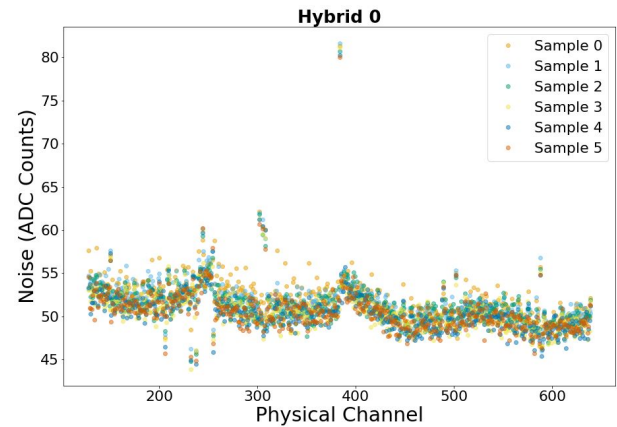
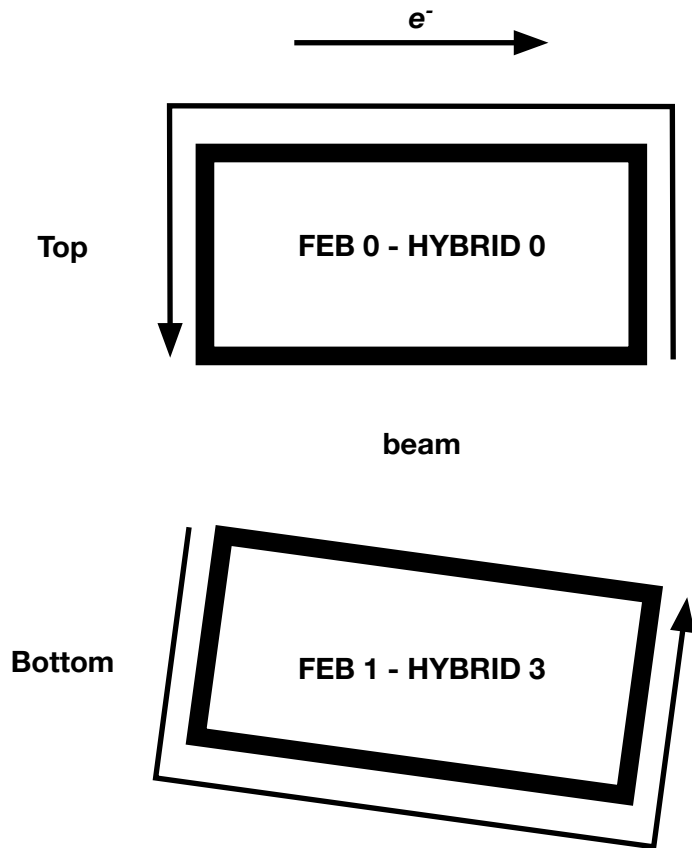
Missing Occupancy Data from **run10416_svt_end.pdf**

L5 Bottom Axial (Hole/Slot)

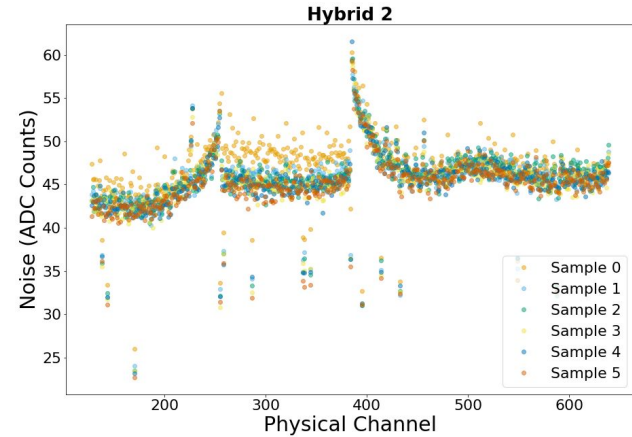
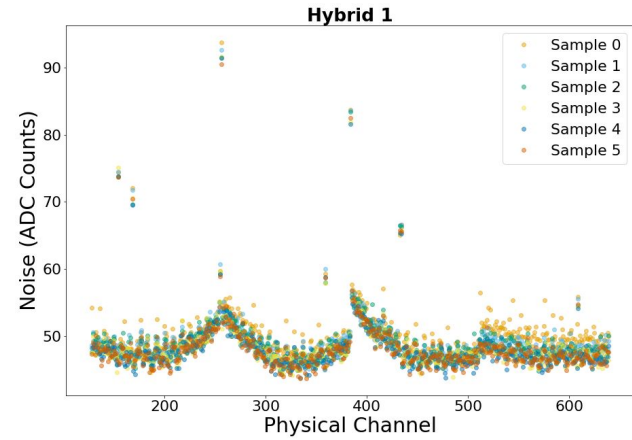
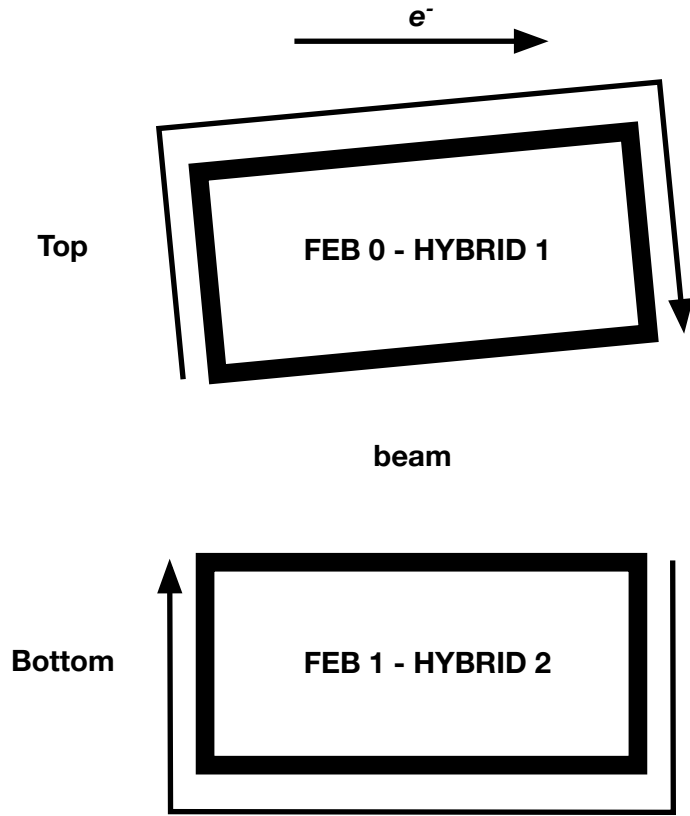
L7 Top Axial (H/S)

L7 Top Stereo (H/S)

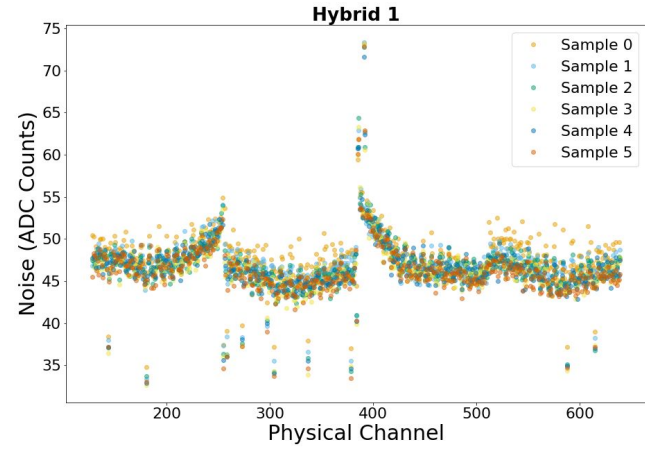
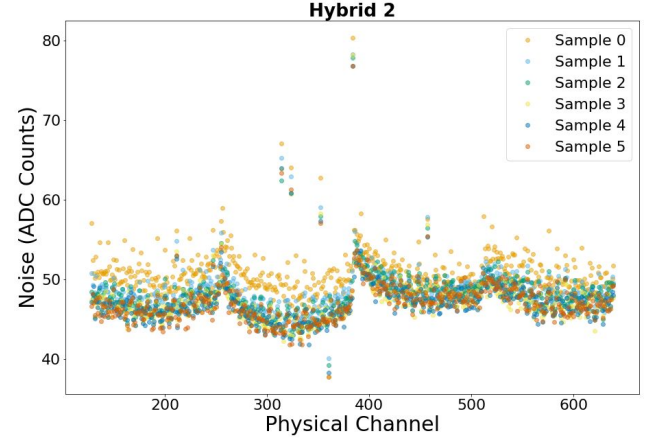
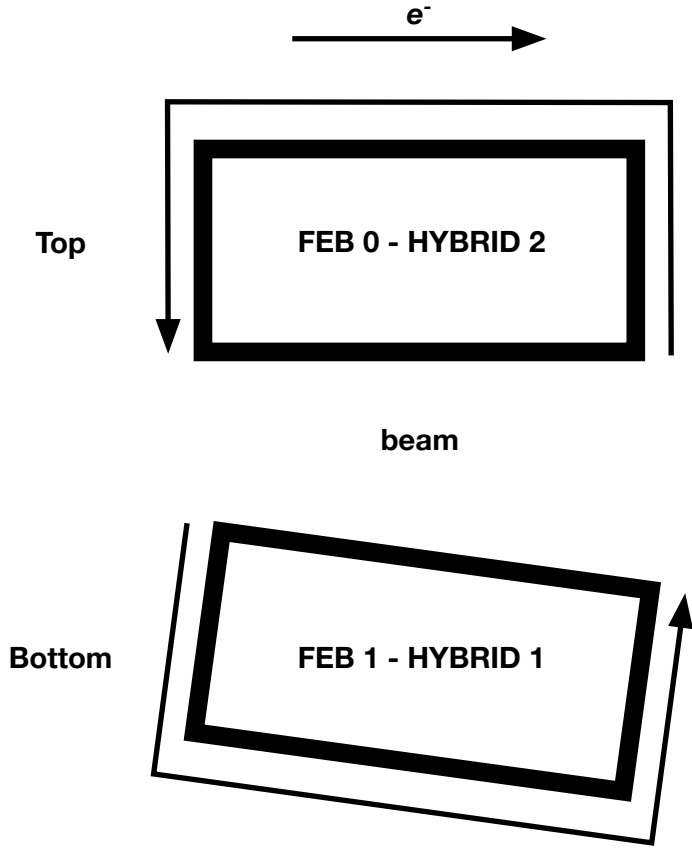
L1 FRONT



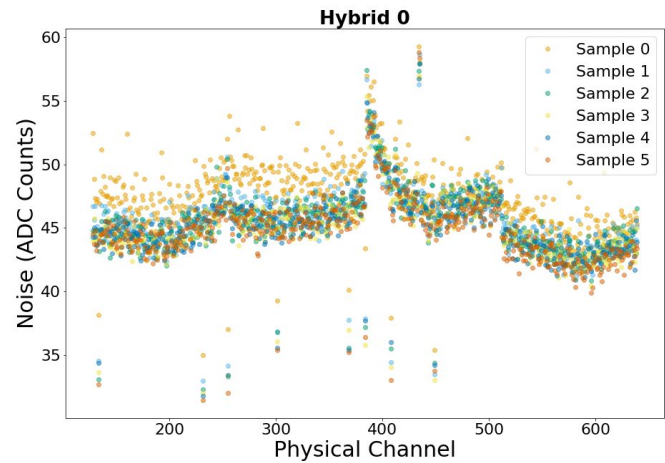
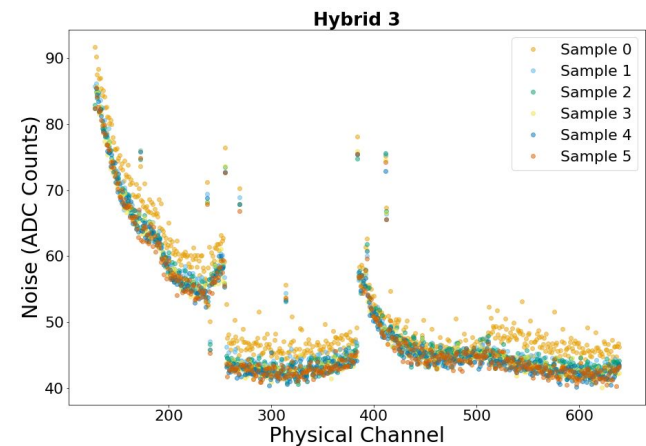
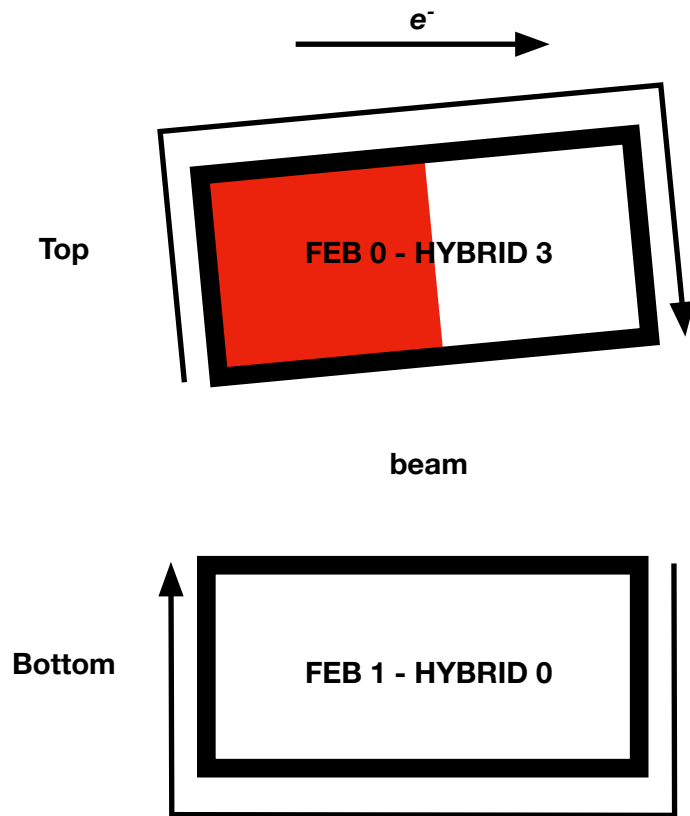
L1 BACK



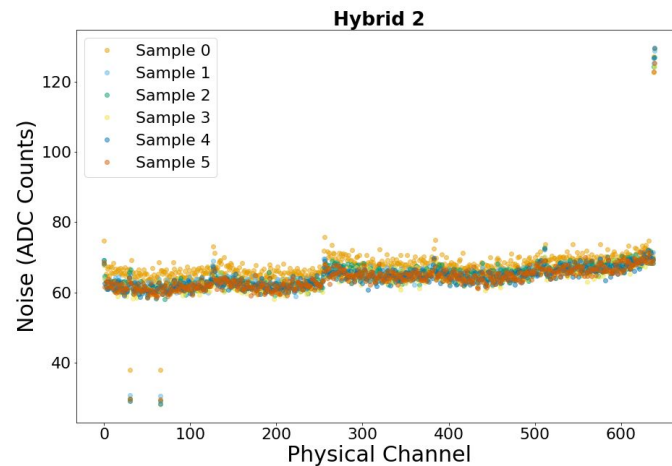
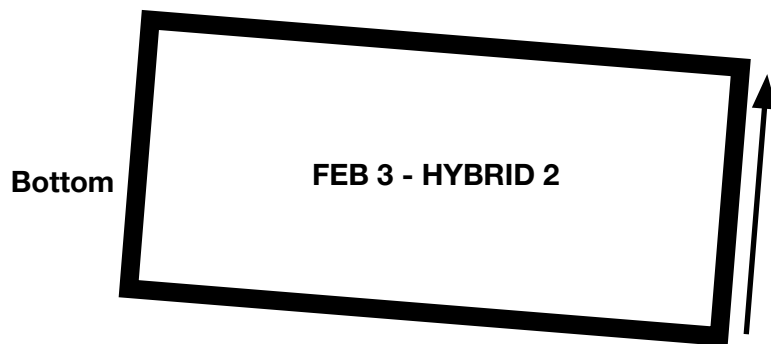
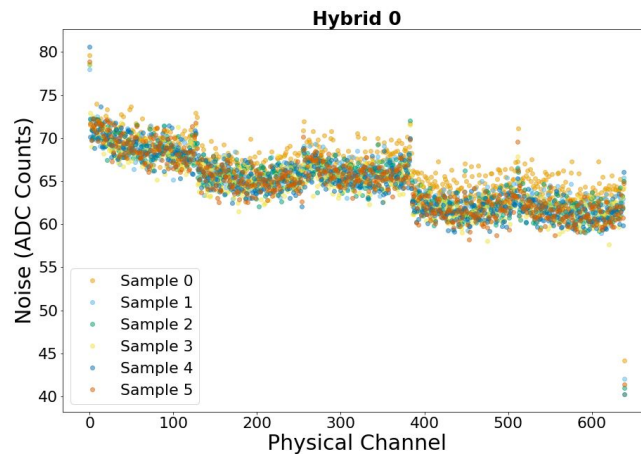
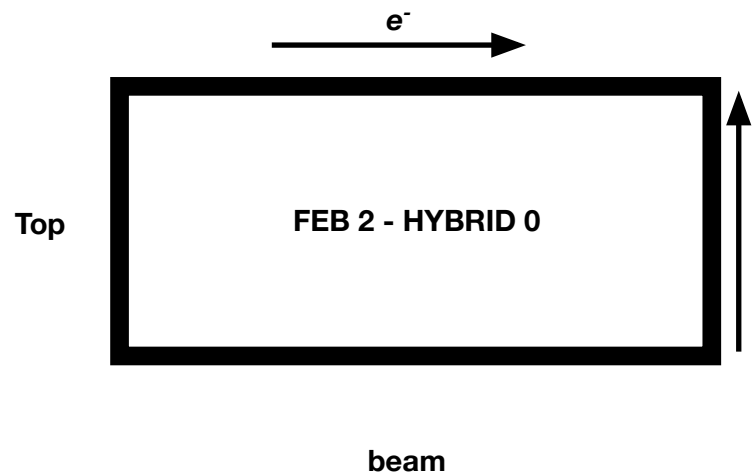
L2 FRONT



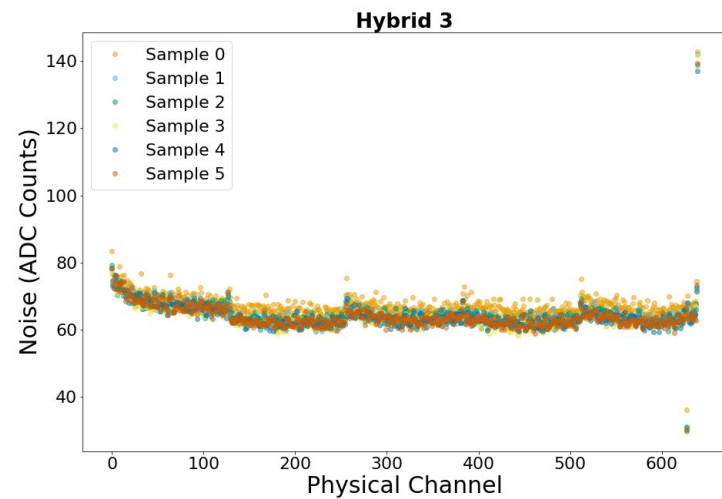
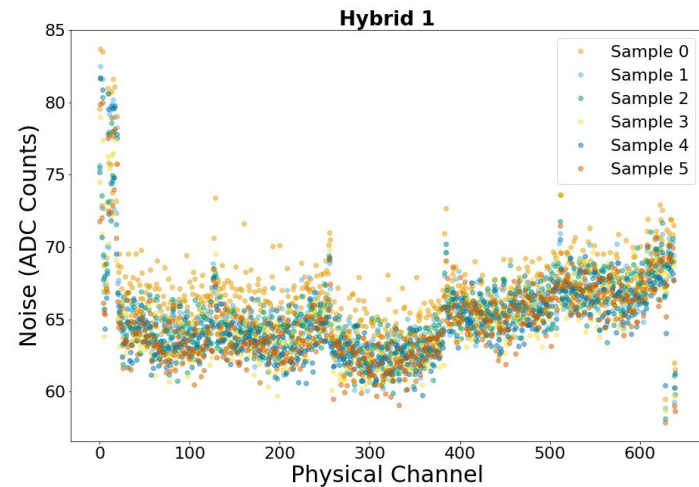
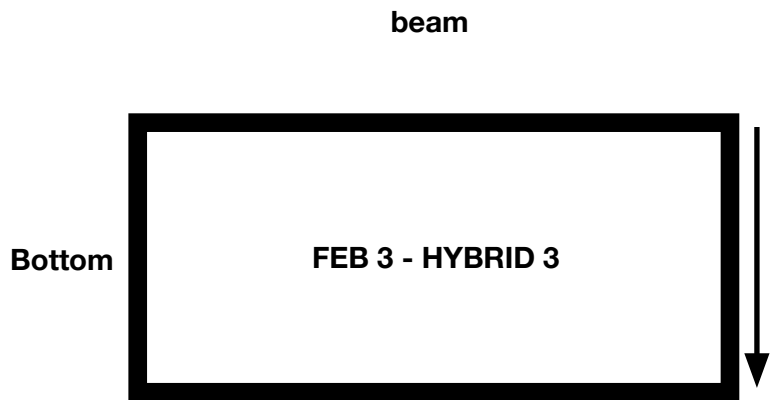
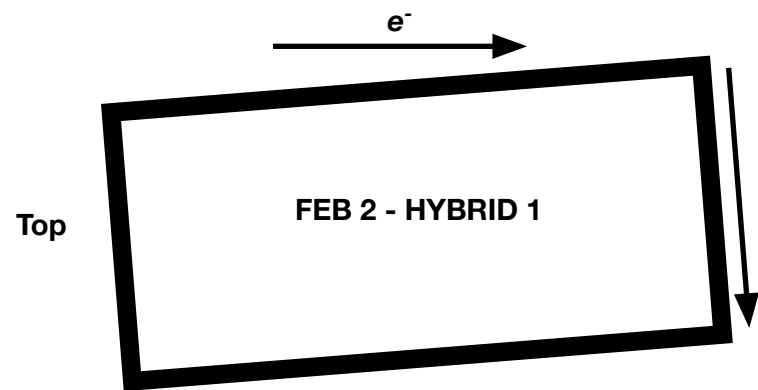
L2 BACK



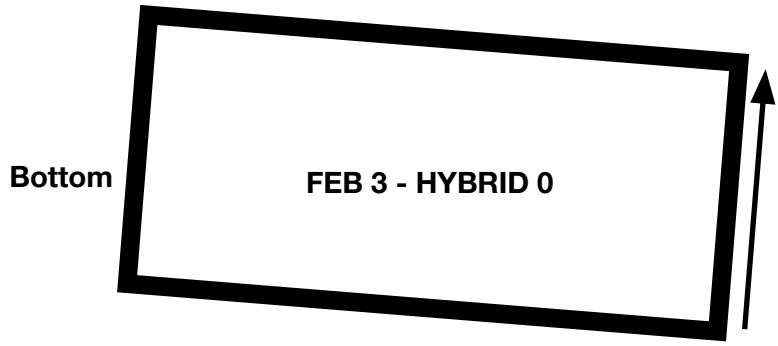
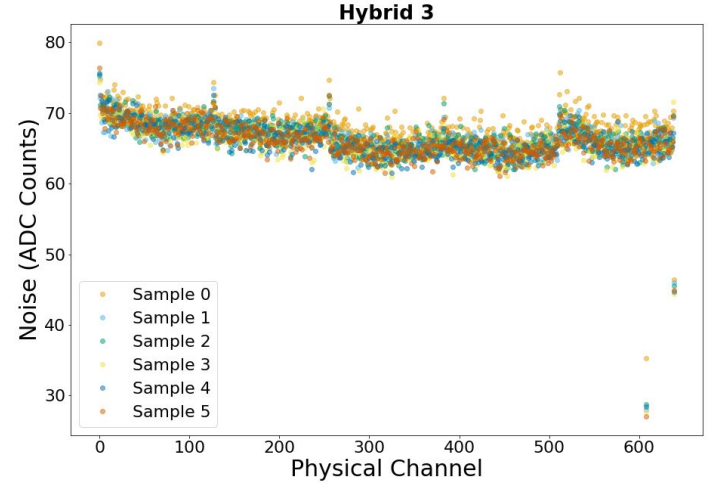
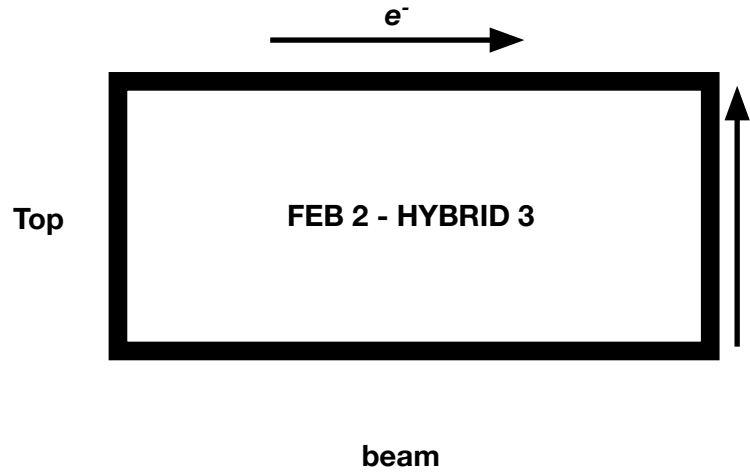
L3 FRONT



L3 BACK

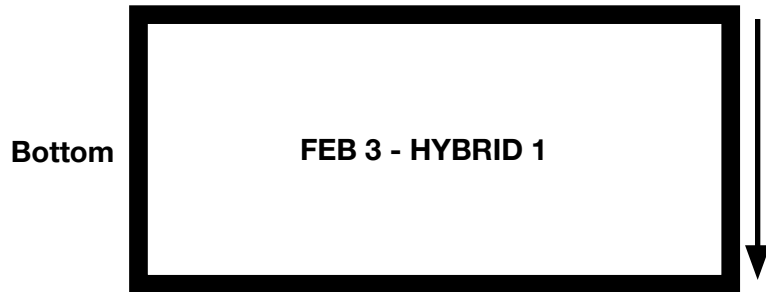
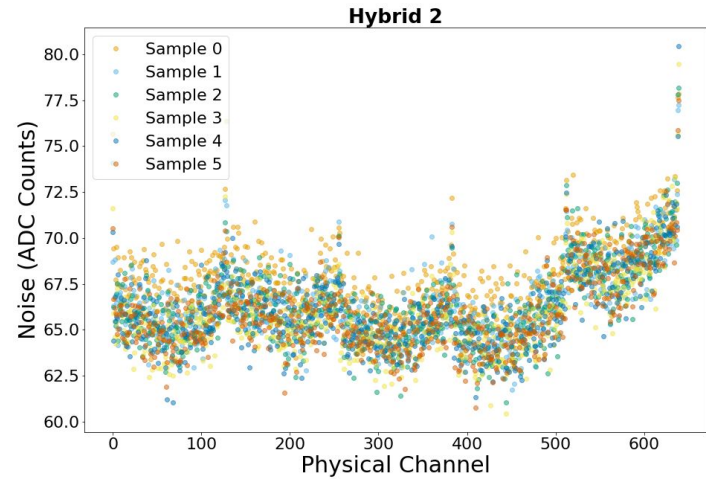
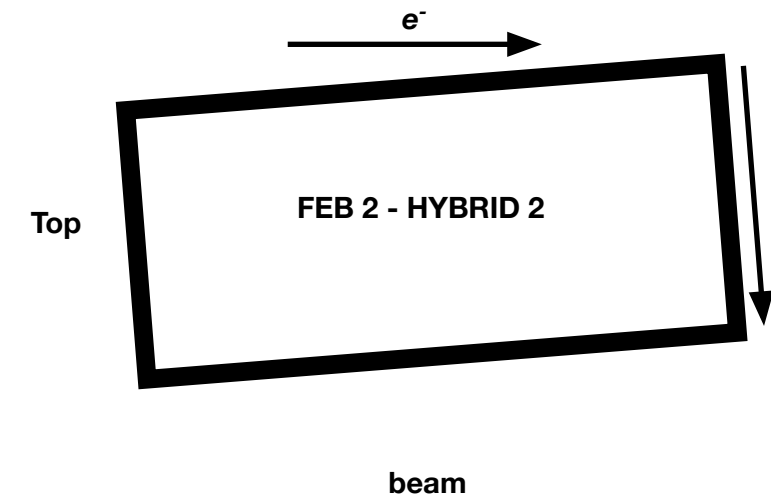


L4 FRONT



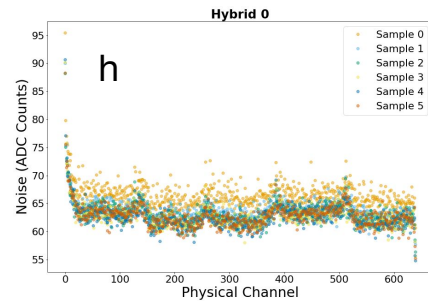
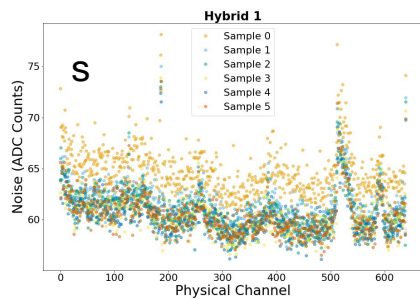
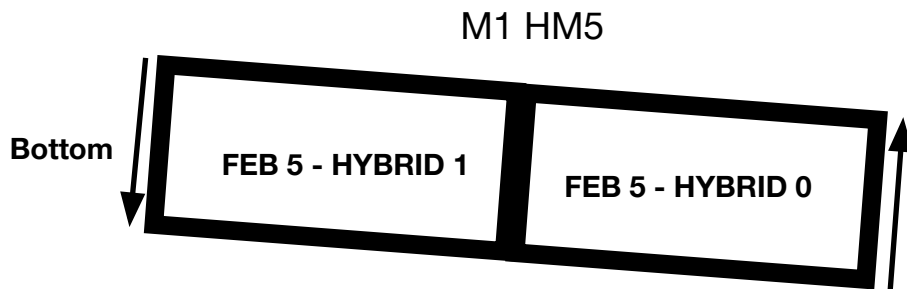
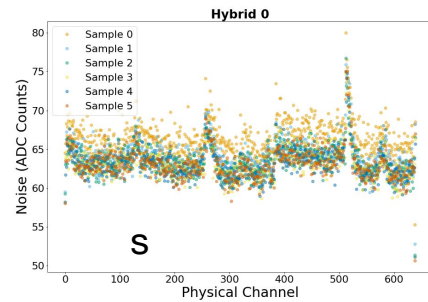
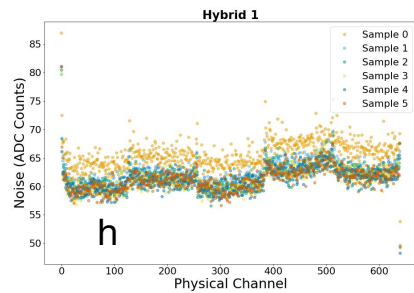
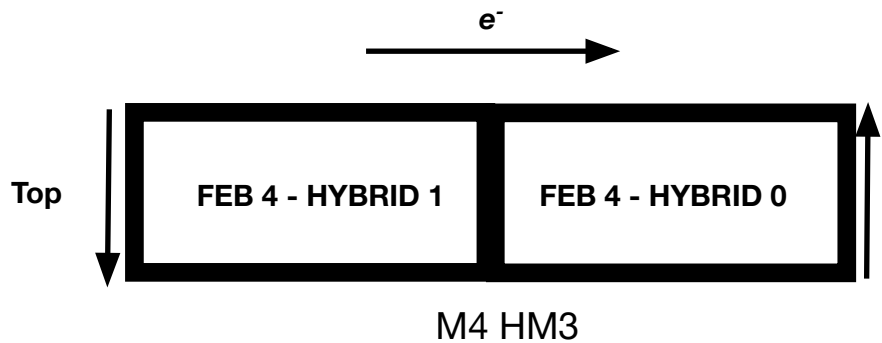
M9 HM15

L4 BACK

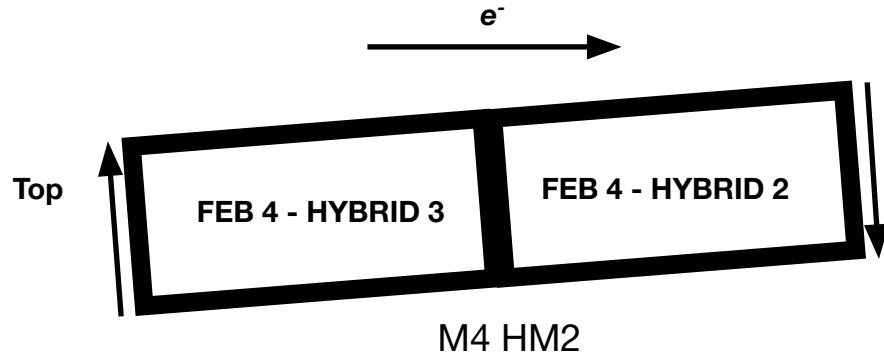


M9 HM19

L5 FRONT

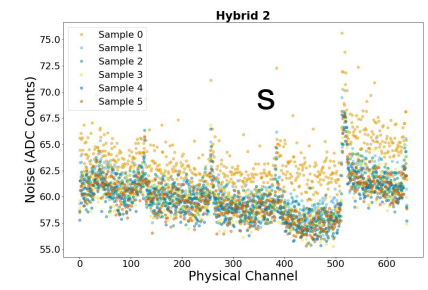
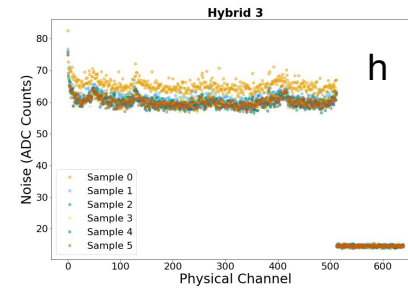
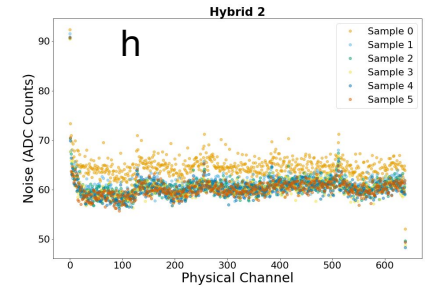
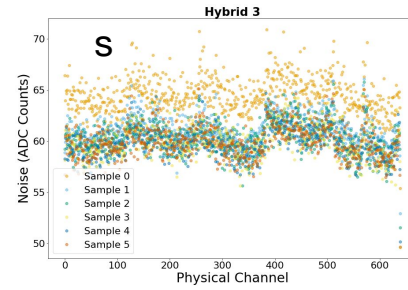
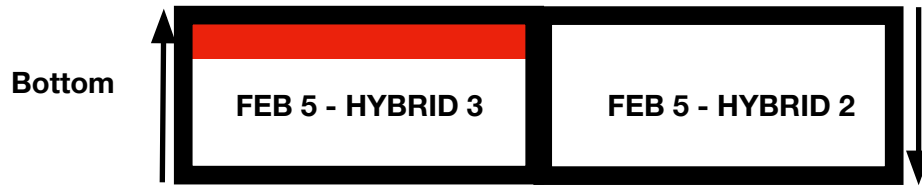


L5 BACK



beam

M1 HM6



L6 FRONT

e^-

Top

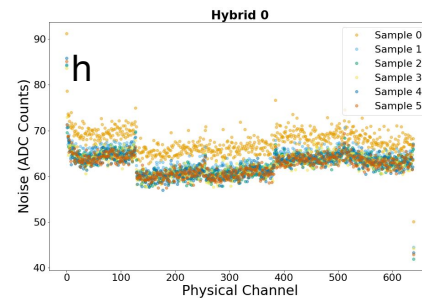
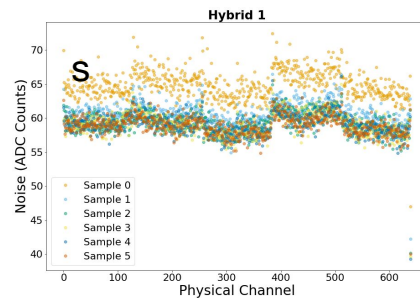
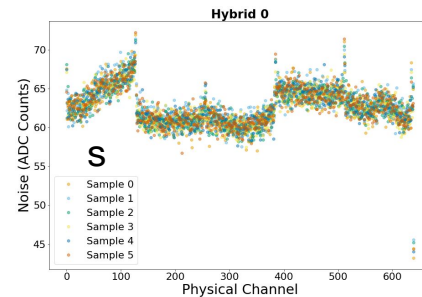
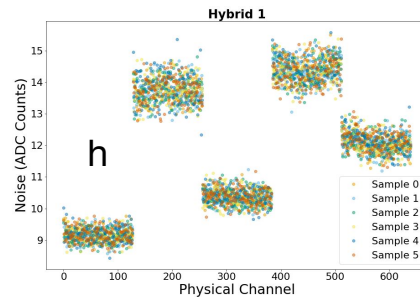
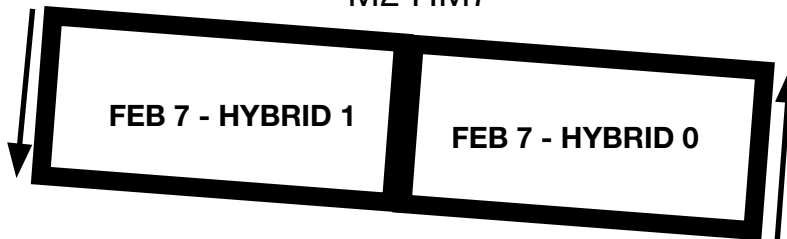


M5 HM11

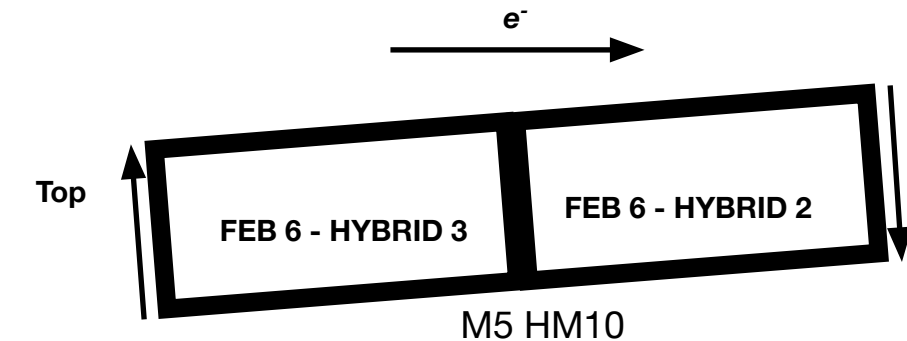
beam

M2 HM7

Bottom



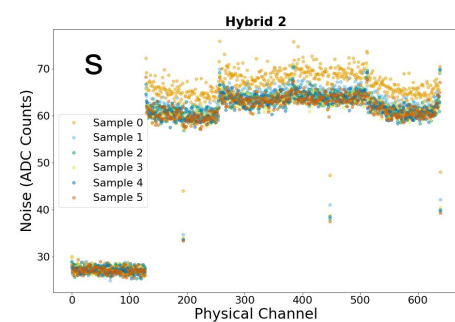
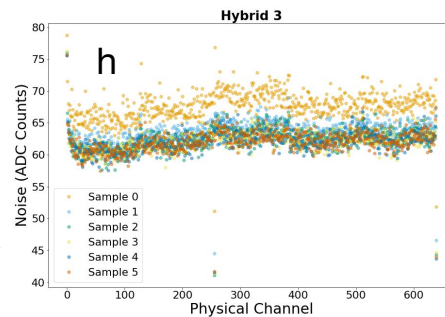
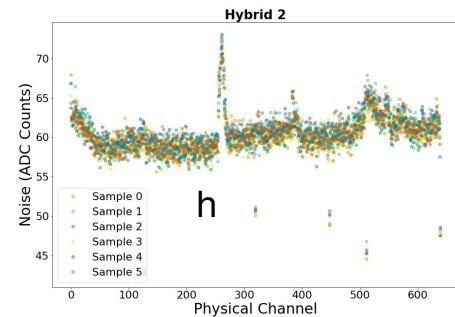
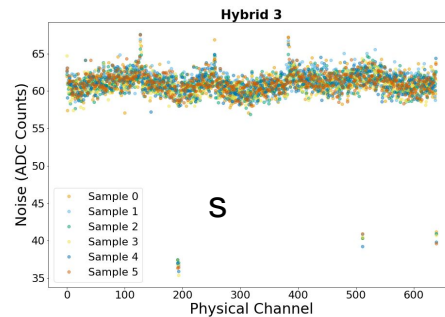
L6 BACK



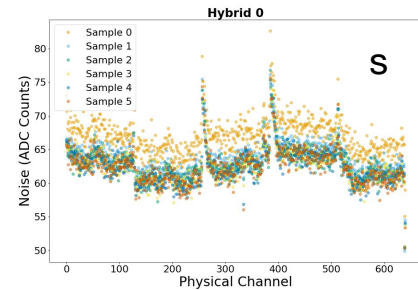
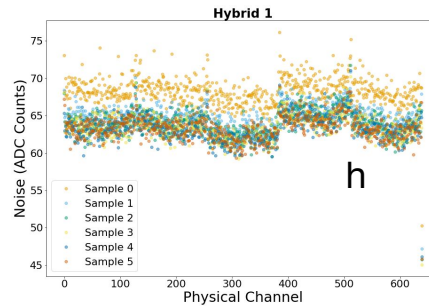
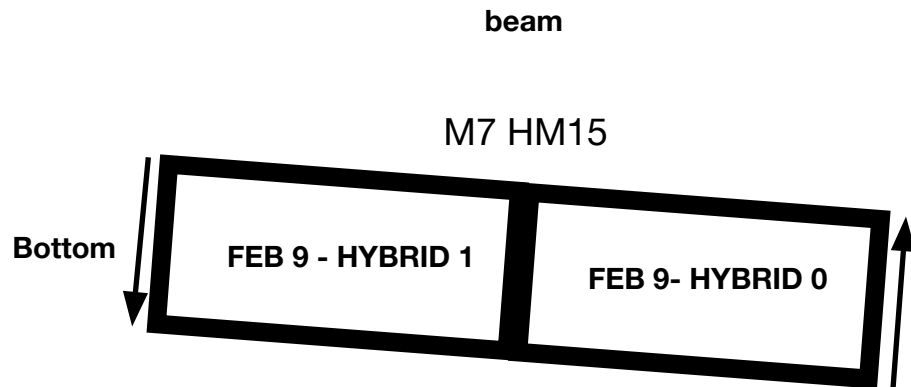
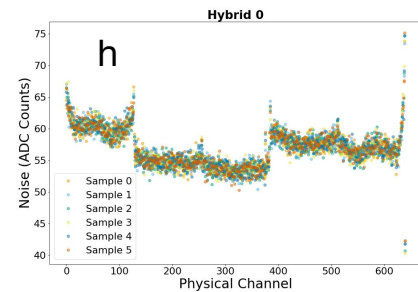
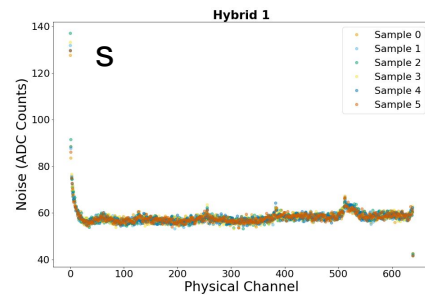
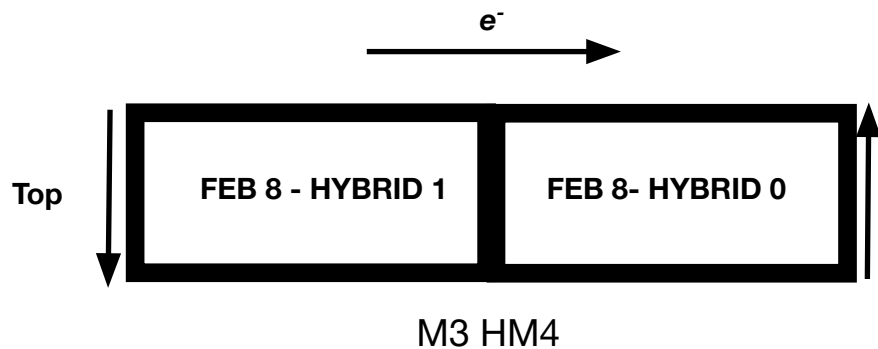
M5 HM10

beam

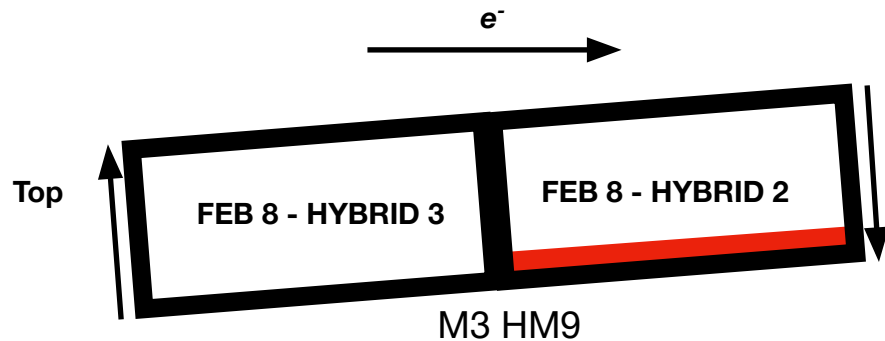
M2 HM8



L7 FRONT



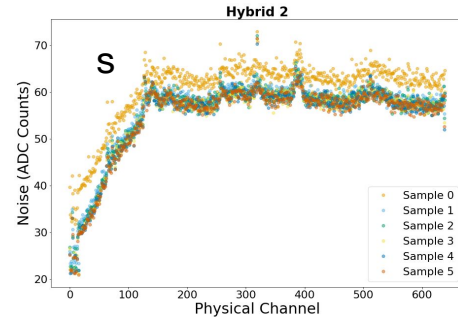
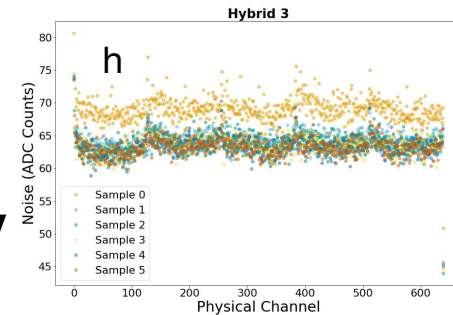
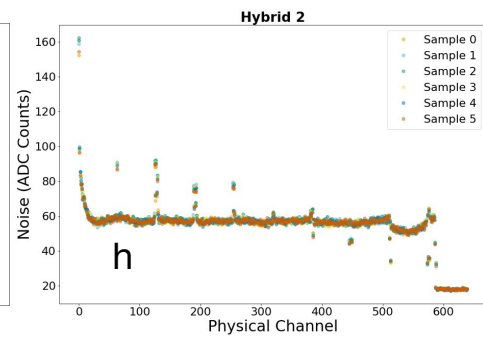
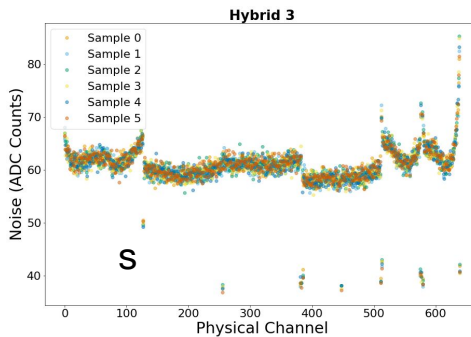
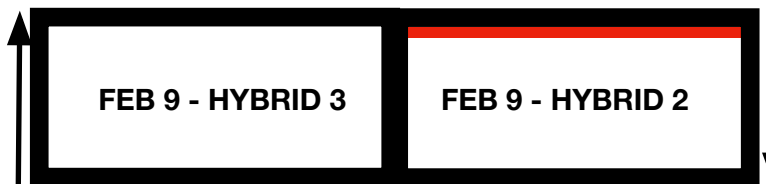
L7 BACK



beam

M7 HM14

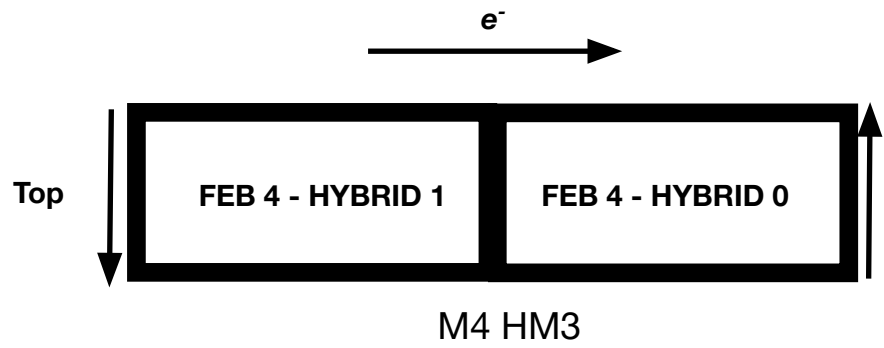
Bottom



Reorg

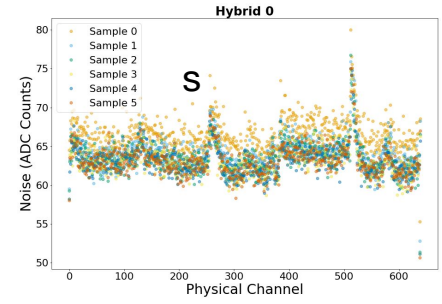
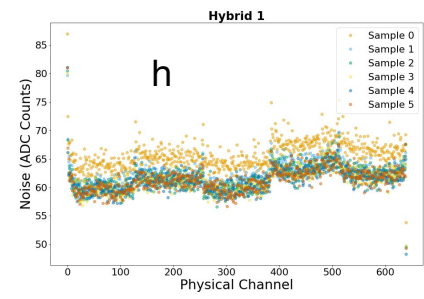
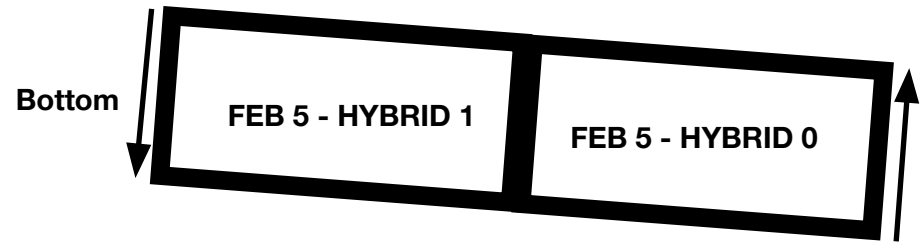
Of L5-7

L5 FRONT



beam

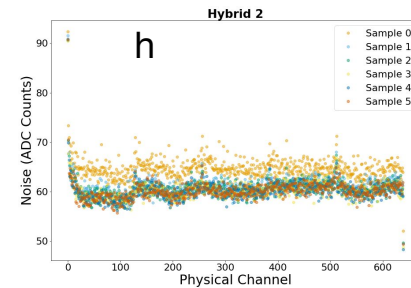
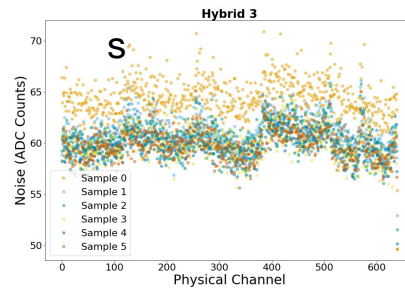
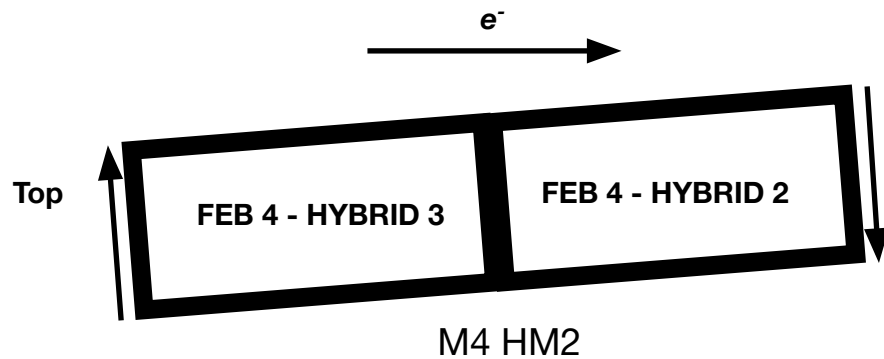
M4 HM Beta



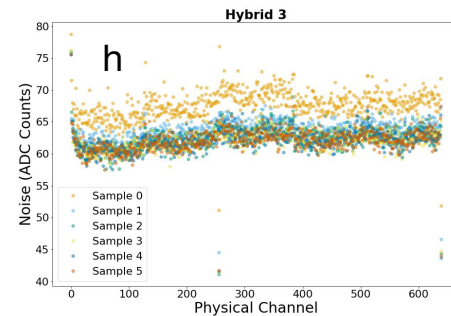
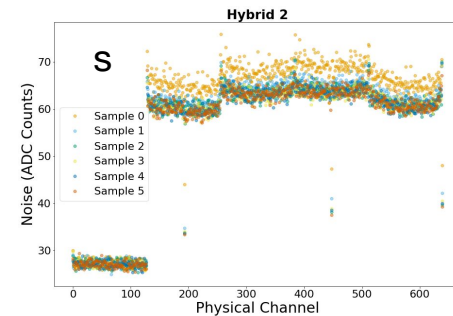
h

S

L5 BACK

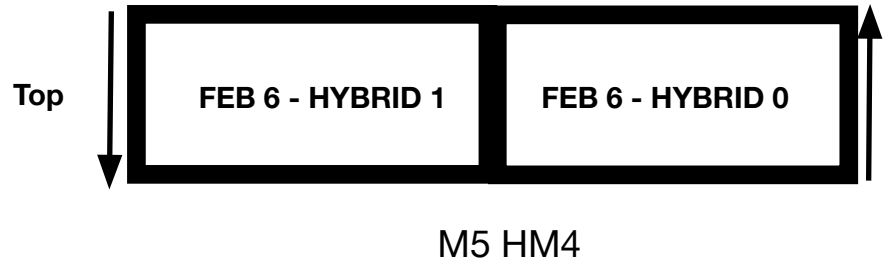
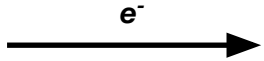


M7 HM8 - flip



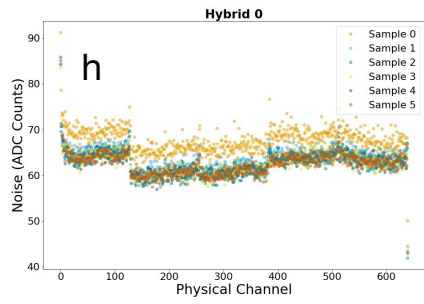
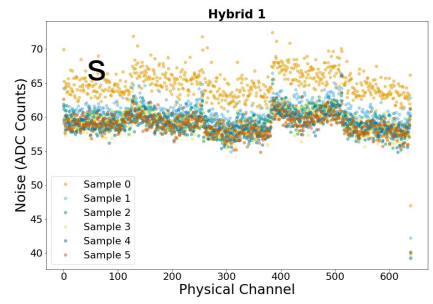
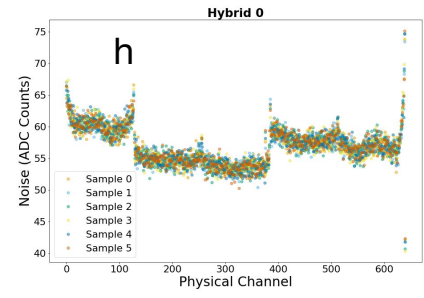
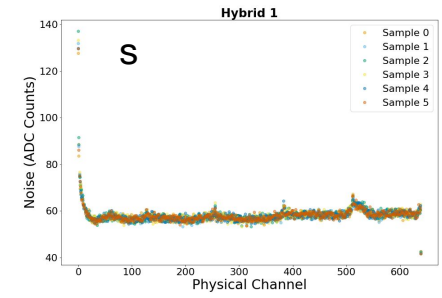
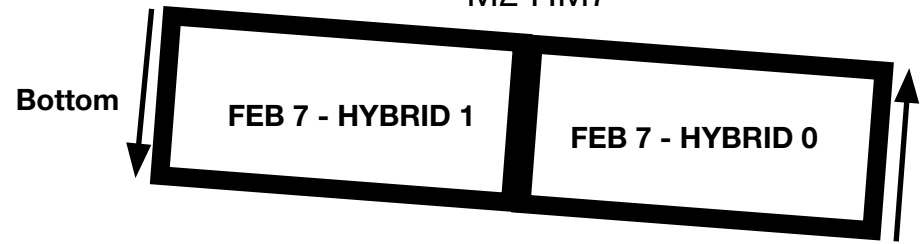
L6 FRONT

e^-



beam

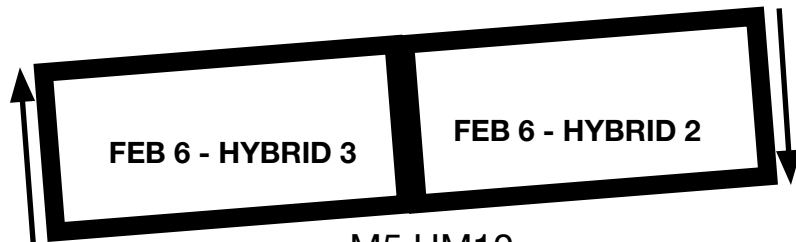
M2 HM7



L6 BACK

e^- →

Top

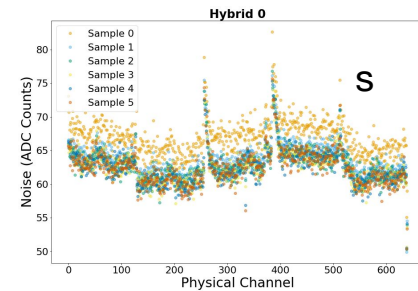
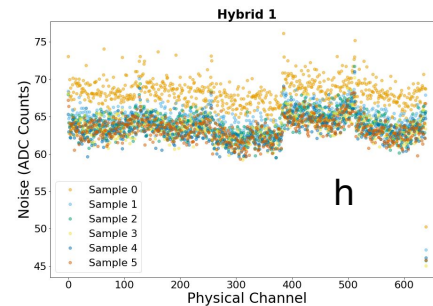
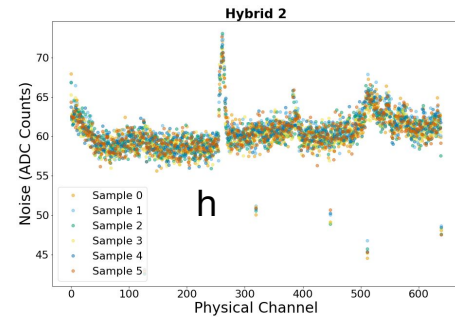
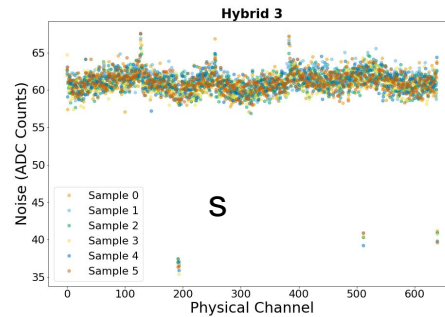
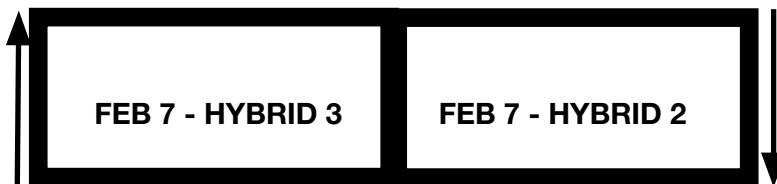


M5 HM10

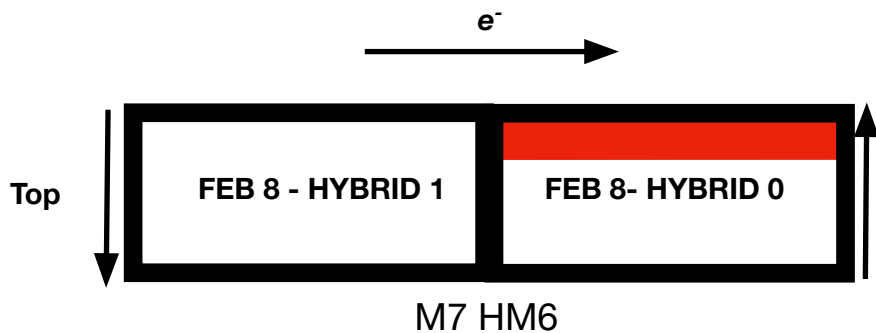
beam

M2 HM15

Bottom

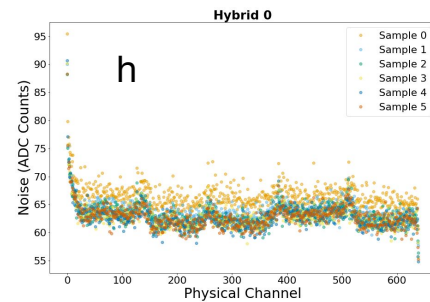
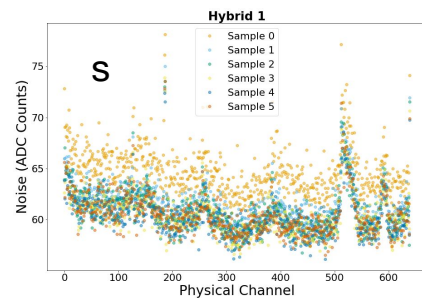
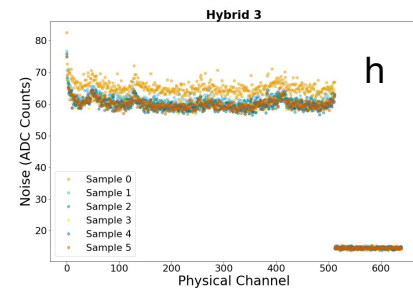
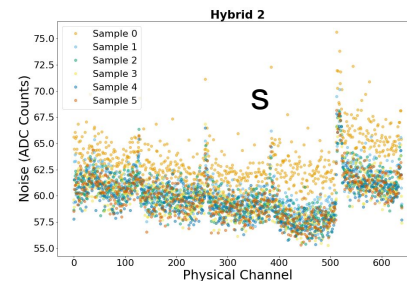
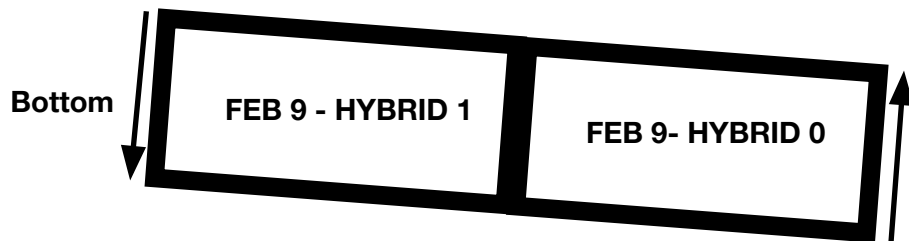


L7 FRONT

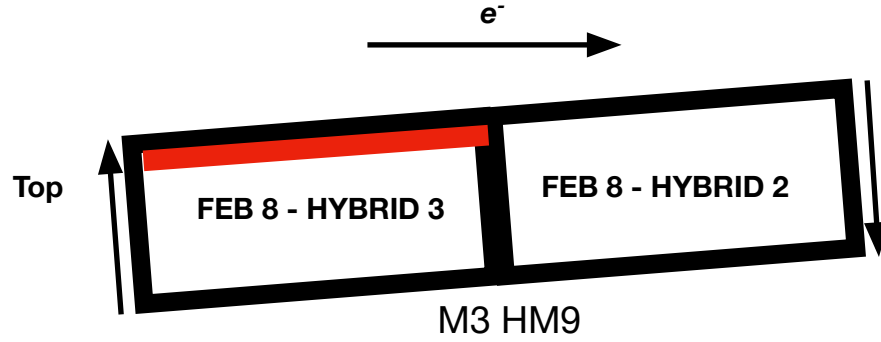


beam

M1 HM5

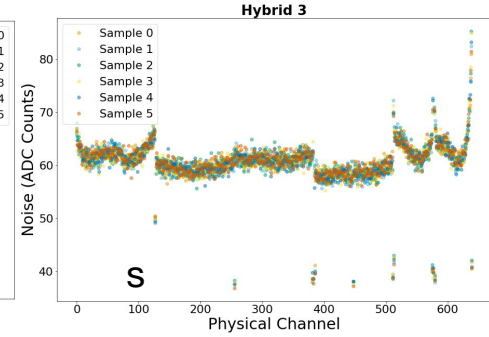
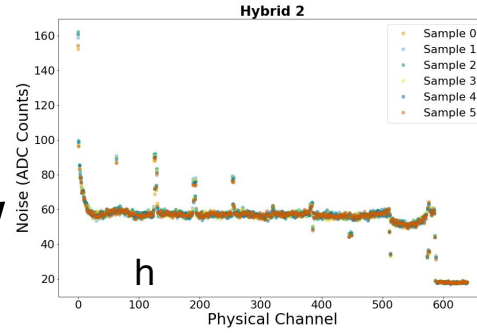
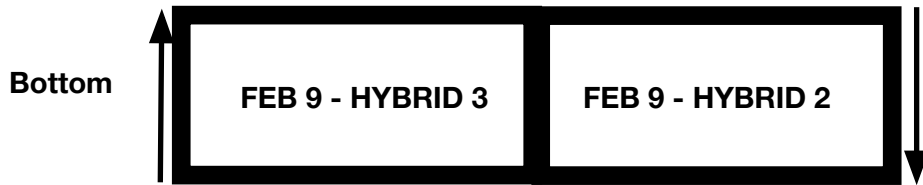


L7 BACK



beam

M1 HM Gamma



s

h

Steps

1. Swap modules 1 and 7 (5 bottom and 7 bottom) DONE
2. Flip L5b axial (HM 14) DONE
3. Swap M5 HM11 (L6t axial) and M3 HM4 (L7t axial) optional flip of M3 HM9 (L7t stereo) DONE
4. Swap M2 HM8 (L6b axial) and M7 HM15 (L5b stereo) DONE
5. Swap M7 HM8 (L5b stereo) and M1 HM6 (L7b axial) DONE
6. Swap M1 HM8 (L7b axial) and M7 HM14 (L5b axial) flipping M1 HM8 (L7b axial) DONE

Priority for spares is to swap out dead hybrid in Layer 7

Consider swapping Layers 7 and 6 completely so we have better extrapolation to ECal



M3 HM11

