

HV splitting

- Current caused by radiation damage
 - Assume 15 fb⁻¹, -10 deg C

Layer	Radius,mm	uA/strip	uA/hybrid	uA/stave
0	18	1.2	310	NA
1	35	0.46	360	NA
2	54	0.28	530 max	1790
3	86	0.12	230 max	770
4	116	0.06	180 max	550

- One HV ch/hybrid for L0-2
- Two HV ch/ stave for L3
- One HV ch/stave for L4-5
- Max current < 0.6 mA => safety factor of 4-5
- Bira HV PS 2.3 mA & 3.2 mA

HV channel count

- Proposed configuration gives total HV channel count of **492**
 - Now have 10 crates => 480 channels
 - Minimum need : 12 motherboards, 280 “+” HV pods => ~ \$135k
 - 3 SMT racks allow for 12 crates => 576 channels
 - Need 2 crates, 21 motherboards, 380 “+” HV pods => \$225k
- Discussions underway to redesign PS
 - Pod only or motherboard?
 - Could be done by R.Yarema’s group
 - Price could be lower by factor of 2(?) –guess at this point
 - One engineer-year