

Belle II Ladder Assembly Procedures and Electrical Qualification

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On behalf of the Belle II SVD Collaboration



Layer 3 (L3)



Layer 4 (L4)



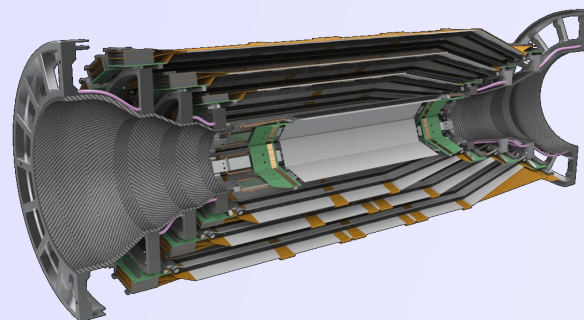
Layer 5 (L5)



Layer 6 (L6)

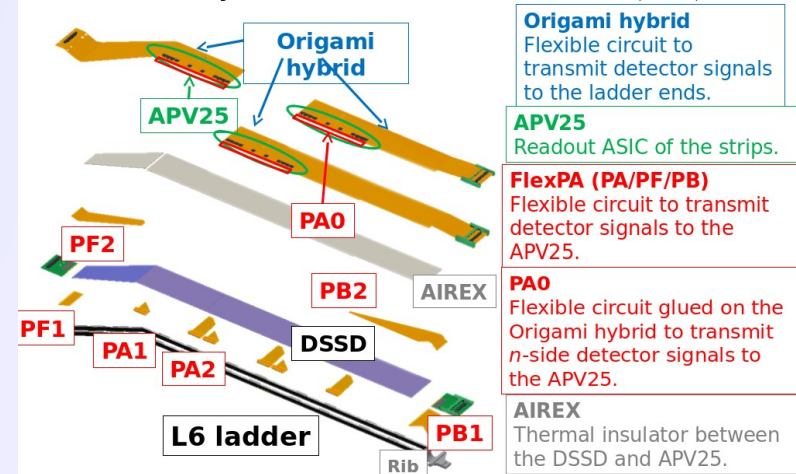


FW & BW modules for L4, L5 and L6



The Belle II SVD

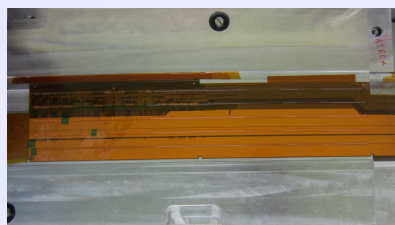
Anatomy of the SVD Ladder (L6)



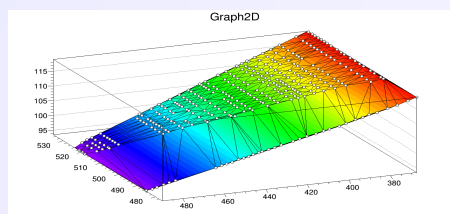
- The procedure for the Belle II SVD ladder assembly has been established and streamlined, including the wire bonding and gluing aspects of it
- The assembly of several prototypes has been completed and their geometrical tolerances have been extensively measured



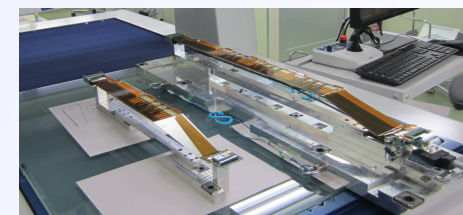
Wire Bonding



Gluing

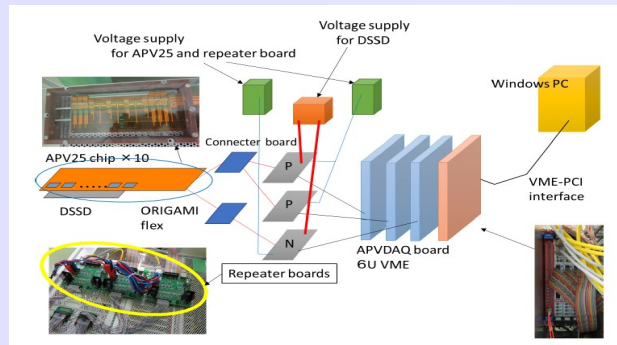


Measurement of Geometrical Tolerance

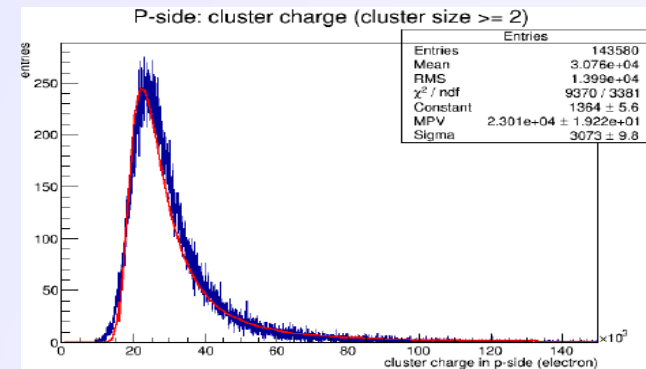


Completed L4 and L6 Ladders

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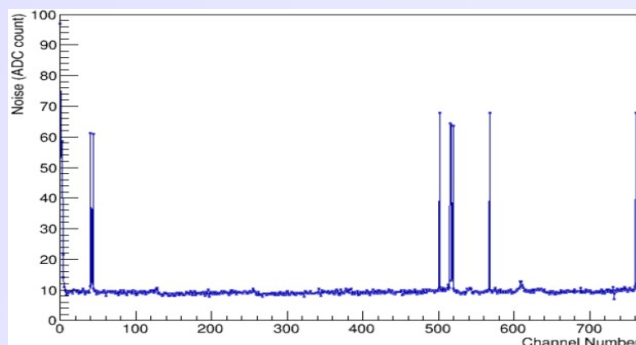


Circuitry of the APV-DAQ

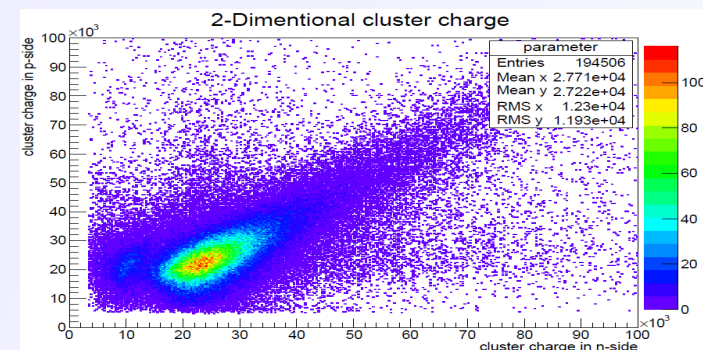


Histogram of the P-side cluster charge

- Electrical tests are foreseen at several steps during the assembly
- All assembly sites will use the same electrical readout system to achieve comparable results
- The final test after assembly will be performed by a beta source (L4, L5, L6) or with a laser system (L3)



Common mode corrected noise



Correlation of the cluster charge measured by P and N side strips