

[ 2-4-5 ] **Forward Drift Chamber 2 (FDC2)**

\* Design

FDC2 is placed after SAMURAI magnet for rigidity analysis of projectile fragments. The cell structure is hexagonal with 10mm drift length. Two staggered planes named super layer, such as xx', are separated by 100mm pitch with shield planes in between.

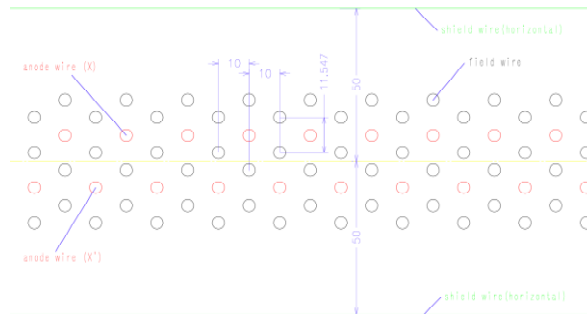
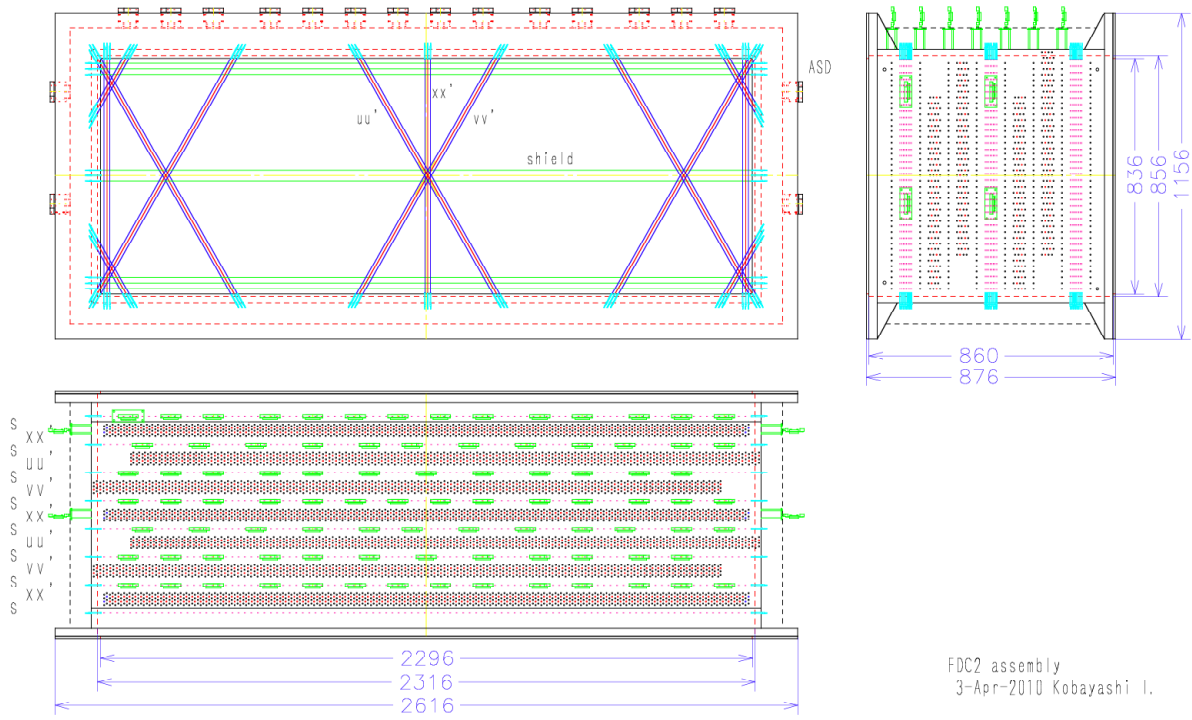


Fig 2-4-4 : FDC2 cell structure

Although it was originally planned to put FDC2 in the detector box for low-pressure operation, FDC2 will be operated at 1 atm for the time being due to technical difficulties.

Anode wire	40 $\mu$ m $\phi$ Au-W/Re, 20mm pitch
Field & shield wire	80 $\mu$ m $\phi$ Au-Al, 20mm pitch
Cell structure	hexagonal, 10mm drift length
Configuration	s-xx'-s-uu'-s-vv'-s-xx'-s-uu'-s-vv'-s-xx'-s ( $\pm 30^\circ$ for u/v)
window	2296mm x 836mm
#anode wires (dummy)	224(4) anodes/super layer x 7 super layer = 1568 (28) anodes
#field / shield wires	4788 (field), 328 (shield)
Operating gas	He+60%CH <sub>4</sub> at 1 atm ( i-C <sub>4</sub> H <sub>10</sub> below 100 torr)
HV	field wires, shield wires
Readout	ASD x98, ASD PS x11, TDC x25, 2 VME crates



FDC2 assembly  
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Fig. 2-4-5 : FDC2 Assembly