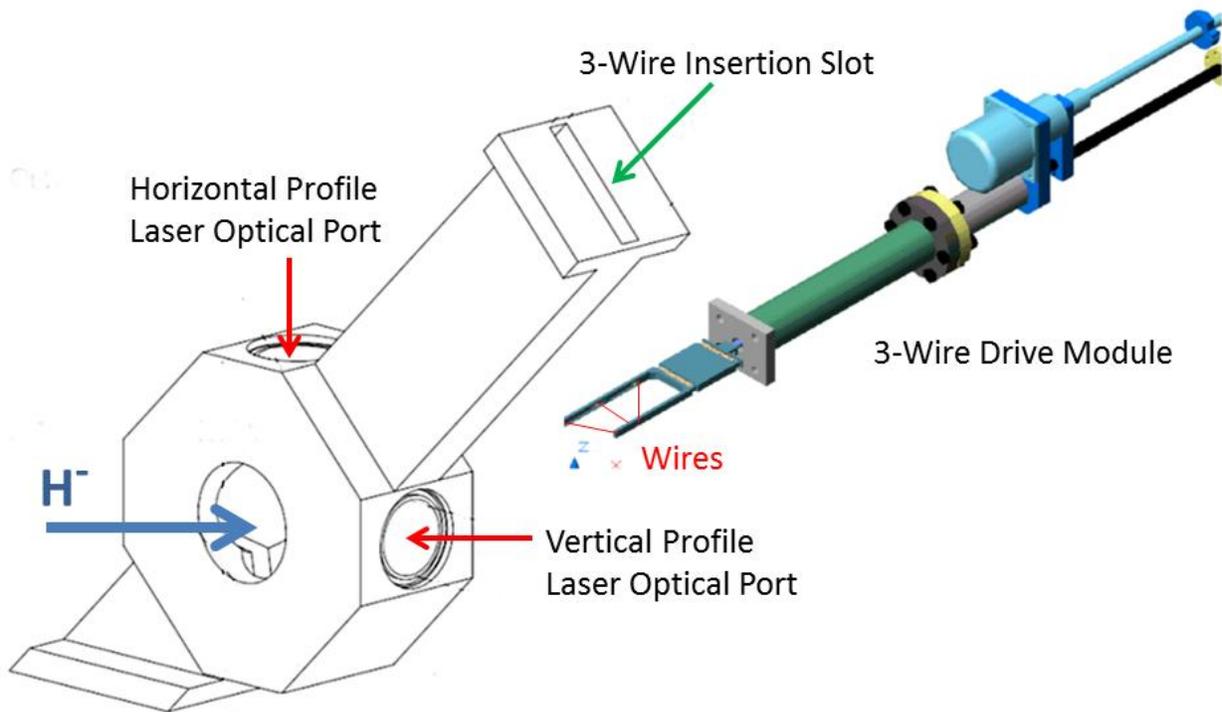


Three-wire Transverse Wire Scanner plus Laser Wire



Transverse 3-wire wire scanner plus laser wire module.

- Hybrid wire scanner with laser ports
 - Modified version of SNS design
- Wire scanner in pulsed beam operation only
- Laser wire in either pulsed or CW beam operation
- Laser wire can measure transverse and longitudinal profiles
 - Will different lasers be required for transverse versus longitudinal measurements?
 - Will different electron collection detectors be required for transverse versus longitudinal measurements?
- Required profile measurement across entire aperture?
 - Can wires or lasers measure profile tails/halo?
 - What size optical windows are required?
 - Two inches?
 - What is transverse resolution requirement?
 - 10% of one sigma?
 - What is longitudinal resolution requirement?
 - 10% of one sigma?
- What collection scheme used for “soft” photoionized electrons?
 - Very soft electrons (1 keV)

- Magnetic or electric field collection?
- Will beam background electrons need to be swept away?
- Will magnetic shielding be needed for stray magnetic fields?