

Alcator C-Mod Port Space

3/4/2011

A PORT

Top Flange

- 10" Inner Flange (2) 2 ¾" Flanges WASP probe(LaBombard)
- 10" Outer Flange ?????
- 10" Top Flange IR periscope(J.Terry)

Horizontal Flange

- O-Mode reflectometer (Marmar)
- Scanning probe (LaBombard)
- 6" window (J. Terry)
- Two mini conflat flanges (XXXX)
- Penning gauges (B. LaBombard)
- Camera array (J. Terry)
- Iris shutter (j. Terry)

Bottom Flange

- Periscope
- 10" Inner Ledge and Wall Box Bolometer Connectors(Reinke)
- 10" Outer TC Feed-thru Flange(LaBombard)

B PORT

Top Flange

- 10" top Flange Zweben Views (2) (J.Terry)
- 10" Outer Flange B-Top Piezo gas valve(Toland)
- 10" Outer flange Wall Box AXUV diodes and Lyman-alpha diodes
- Bolometer Cables(Reinke)
- 10" Inner Flange Magnetics(Granetz)

Horizontal Flange

- Li Pellet injector (Marmar)
- Hirex Senior (J. Rice)
- Spectrometer (Reinke)
- Fast gas puff (Granetz)
- Hi voltage Penning gauges (LaBombard)
- Diborane gas system (Toland)
- Re-entrant tube for camera (J. Terry) ----- removed ---- RFQ detector?
- Hard X-ray detector (Parker)
- Laser Blow Off (Greenwald)
- Pellet Injector cameras (Greenwald)
 - Top windows with IGT
 - Bottom window open
- Gas system (T. Toland)
 - Two tubes

Bottom flange

- 10" inner magnetic(Granetz)
- 10" Outer Fiber feedthrus (J.Terry)
- MKS Gauge
- Future Piezo Valve(Toland)

C PORT

Top Flange

- Cryo-pump (LaBombard)

Horizontal Flange

- Lower Hybrid II (Parker)
- RF probes (Meneghini)
- Thermocouples (D. Terry)
- Langmuir probes (LaBombard)
- LH SOL Reflectometer (Wukitch)

Bottom Flange

- AB Limiter probes (LaBombard)
- Magnetics Flange(Granetz)
- NINJA Flange(LaBombard)

D PORT

Top Flange

- 10" Inner Flange Magnetics (Granetz)
- 10' Outer Flange (2) MS Connectors (Granetz??)
- 10" Top Flange Glow Discharge Connectors(Irby)

Horizontal Flange

- Two strap RF antenna (S. Wukitch)

Bottom Flange

- Magnetics Flanges(3) (Granetz)
- SXR diodes (Granetz)
- DIVER Bolometry (Reinke)

E PORT

Top Flange

- 10" Top PCI Gatevalve (Porkolab)
- (4) 2 ¾" flanges on 10" Header
- (1) Inner MKS Gauge(LaBombard)
- (3) Not Used

Horizontal Flange

- Two strap RF antenna (Wukitch)

Bottom Flange

- PCI Gatevalve(Porkolab)
- MKS Gauge(LaBombard)
- 10" Outer Flange(Not Used)

F PORT

Top Flange

- 10" Top Flange
 - 4 5/8" Periscope(Rowan)
 - 3 3/8" F-Top NPA(Bader)
- 10" Inner Flange MKS Gauge(LaBombard)
- 10" Outer Flange

Horizontal Flange

- Diagnostic Neutral Beam (DNB) (Granetz)
- MSE diagnostic (Scott)
- MSE shutter (Scott)
- CXRS poloidal system (Lipschultz)
- CXRS poloidal system shutter (Lipschultz)
- CXRS Toroidal system (Lipschultz)
- CXRS poloidal background system (Lipschultz)
- XXXXX (W. Rowan)
- XXXXX (Igor)
- XXXX X RF (PPPL)
- Re-entrant camera port (J. Terry)
- Hirex Junior, tangential (Rice)
- Z-meter camera, tangential (Marmar)
- Re-entrant IR camera (Granetz)

Bottom Flange

- Scanning probe (B. LaBombard)
- Divertor Probes ???(LaBombard)

G PORT

Top Flange

- Thompson scattering (Hughes)

Horizontal Flange

- Thompson Scattering (Hughes)
- Ratiomatic (T. Toland)
- Alignment probes (Hughes)

Bottom Flange

- Thompson Scattering (Hughes)

H PORT

Top Flange

- TCI (Irby)

Horizontal Flange

- Vacuum system pump stacks and gauges
- ECE(Hubbard)
- MHD antenna (Parker)
- Camera (J. Terry)
- McPherson (J. Terry)

Bottom Flange

- TCI (Irby)
- Gas Line (Toland)

J PORT

Top Flange

- Neutral particle detector (Granetz)
- 10" Inner Flange Magnetics(Granetz)
- 10" Outer Flange BLANK

Horizontal Flange

- Four strap RF antenna (Wukitch)

Bottom Flange

- Magnetics(Granetz)
- TC's (LaBombard)
- BNC Feedthrus (LaBombard)

K PORT

Top Flange

- Polarimeter shutter (Irby)
- WASP probe (LaBombard)
- Periscope (Lipschultz)
- 10" Outer Flange ?

Horizontal Flange

- 4" Polarimeter window (Irby)
- Polar shutter viewing window (Irby)
- S³ diagnostic (Lipschultz)
- 2-Pi detector (Reinke)
- Bolometer Box (Reinke)
- Fiber optics & camera viewing G-H Limiter (Lipschultz)
- Re-entrant port with fiber optics viewing launcher (j. Terry)
- DALSA (Marmar)
- Bolo shutter (Marmar)
- H/D (Marmar)
- Two sparker flanges (Toland)
 - One in use
 - One spare
- Hirex Junior (Rice)
 - Two tangential ports (one in use)

Bottom Flange

- Two Periscopes
 - Lipschultz
 - LaBombard
- TC's (LaBombard)
- 10" Blank(Not Used)

L Port

Upgrades Requiring Feedthroughs, Windows, Port Space:

- Outer Divertor Upgrade (Lipschultz)
- New gas capillaries (Lipschultz)
- CECE fluctuations (White)
- Doppler reflectometer (White)
- Fast Ion loss detectors (Pace)
- LHIII (currently planned for B-Hor) (Parker)
- 2nd 4-strap (J-Hor) (Wukitch)
- 3rd 4-Strap (currently planned for E-Hor) (Wukitch)
- ICRF sol reflectometer (Wukitch)
- B-Port Lyman Alpha (?)
- 2nd disruption gas jet (Granetz)
- QCM antenna (LaBombard)
- Upgrade/Refurb of probes, TCs, etc (LaBombard)