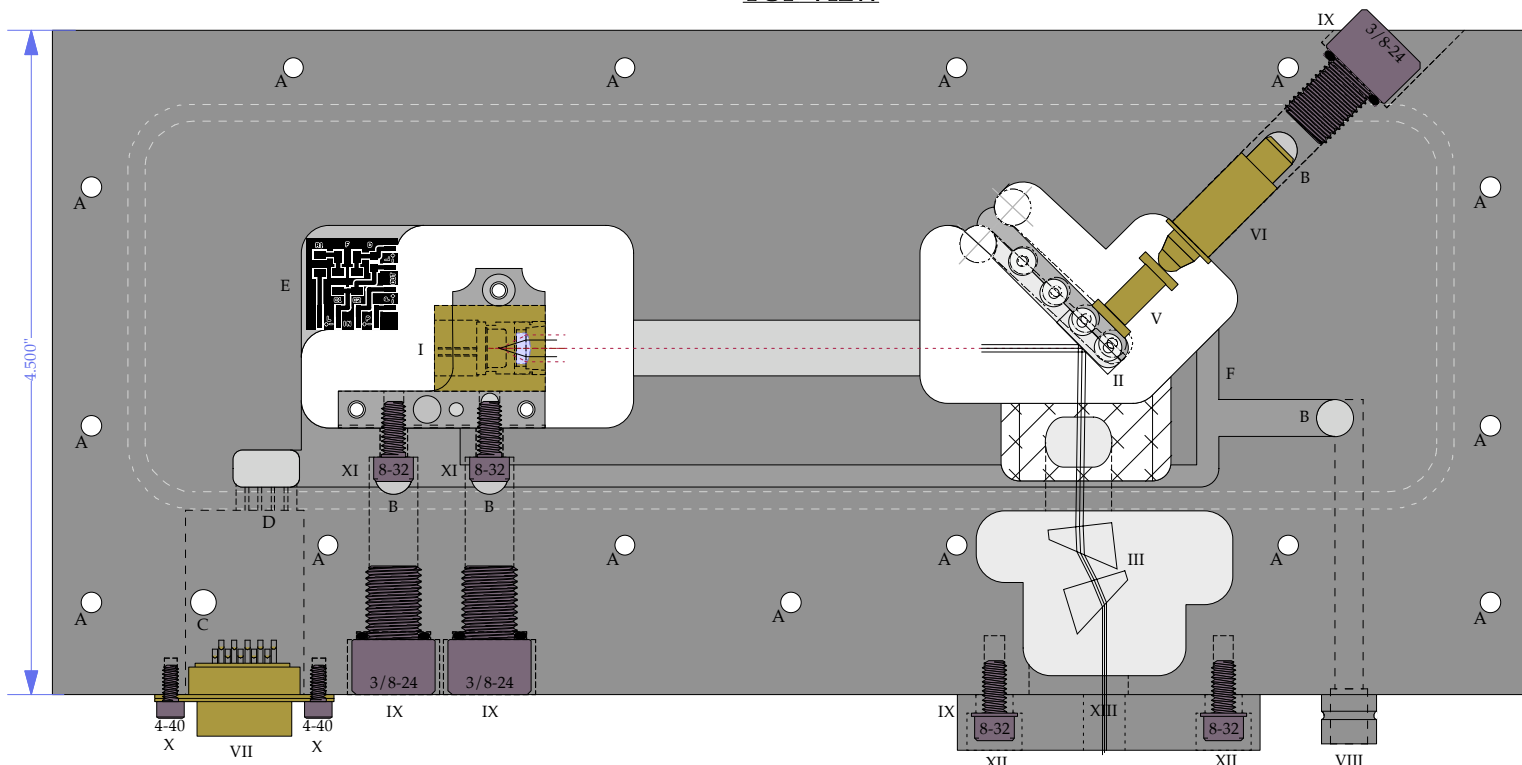
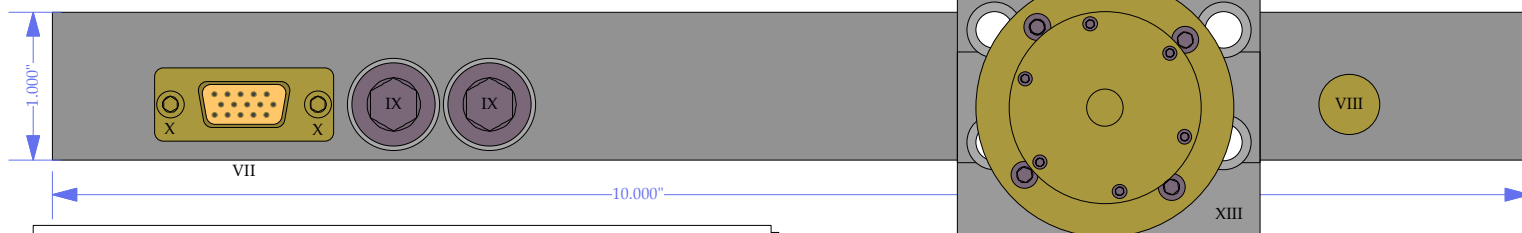


## TOP VIEW



## FRONT VIEW



### PERIPHERALS:

- I: Diode collimation tube with optic; Thorlabs P/N LT230P-B.
- II: Holographic diffraction grating, lines/mm determined by desired wavelength. Custom size (12mm x 6mm x 3mm) available through Newport.
- III: AR coated anamorphic prism pair; Thorlabs P/N PS871-B.
- IV: Oz Optics pigtailed PM fiber coupler (with hardware).
- V: Low-voltage stacked Piezoelectric actuator from Noliac; P/N SCMA (5 mm x 5 mm x 10 mm; 60 V max voltage; 1000 N blocking force).
- VI: 1/4-100 fine adjustment screw, sleeve diameter  $\varnothing 0.343'' \pm 0.001''$ ; New Focus P/N 9376-K. Cut hole  $\varnothing 0.345'' \pm 0.001''$  for tight fit.
- VII: D-sub 15 contact female connector, shell size E.
- VIII: Built-in 1/4" vacuum seal-off valve (see Cryocomp P/N V1021-1) to be used with a valve operator (Crycomp P/N V1025-3).
- IX: 3/8-24 x 0.5" stainless steel socket-head cap screw, with  $\varnothing 3/8''$  ID 1/16" thick Viton O-ring.
- X: 4-40 x 0.25" stainless stell socket-head cap screw.
- XI: 8-32 x 0.375" stainless steel socket-head cap screw.
- XII: 8-32 x 0.375" stainless steel socket-head cap screw, with narrow profile ( $\varnothing 0.310''$  OD) washer.
- XIII: Optical isolator adapter plate (see additional drawings).
- XIV: Viton O-ring, 7" ID 3/32" thick, McMaster P/N 1201T837. Inserted in grooves on lids.

### EXTERNAL CAVITY UNIBODY LITTROW LASER -- ASSEMBLY DRAWING

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4/21/11

### NOTES:

- A: 8-32 tapped holes for mounting lids.
- B:  $\varnothing 1/4''$  holes for venting screws.
- C:  $\varnothing 0.177''$  hole to pass TEC current wires to underside of main cavity.
- D: Five  $\varnothing 0.063''$  holes to function as wire feedthroughs.
- E: Shelf for laser-head protection circuit board.
- F: 1/8" deep venting channel, which also functions to run wires to the piezo and temperature sensors.