SAM in Numbers

AOM: optics

- Focus depth w.r.t. flange surface: 150mm

- OAP parameters:
  - Focal length 810mm
- Off-axis distance 213.277mm

- Diameter 175mm

- Deformable mirror BIM-60
  - Number of electrodes: 60
  - Pupil diameter: 50mm, incidence angle: 12.5deg
  - Min. curvature radius (400V on all electrodes): 16.7m

- Tip-Tilt guiders
  - Patrol field: 100x100mm (5x5 arcmin)
  - Probe field of view: 3x3arcsec

**AOM - mass and dimensions**

- Total mass at installation (3-Aug-2009) ~300kg

- Offset towards SOAR w.r.t. the ISB hole: 67.5m
SOAR telescope
• Aperture diameter 4.10m

• Plate scale 0.330mm/arcsec or 3.025arcsec/mm

• M1 curvature radius at vertex: -13.50970m

• M1 conic constant: -1.002667

• M2 curvature radius: -2.03265m

• M1-M2 distance: 5.83922m

• M2-M3 distance: 4.98922m
- M3 to focus: 4250.0m

- Effective focal length: 68.175m (F/16.63)

- Focal surface radius: 0.9656m (convex outside)

- Central obscuration: 0.228 (diameter 936.5mm)

## Laser

- Wavelength 355nm

- Nominal power 10W

- Nominal pulse frequency 10kHz, pulse length 34ns

- Laser head size: 813x127x86mm, mass: 14.5kg

- Typical power consumption: 400W laser, 700W chiller

- Power supply size: 427x364x76mm, mass: 8.4kg

- Chiller size: 533x440x264mm, mass 55kg

## Electronics

## Computers
HR camera

- Pixel size 10 micron or 15.23mas
- Format 658(H)x496(V) or 6.58x4.96mm or 10.0x7.55arcsec

SAMI

- Pixel size 15micron or 45.5mas
- 4Kx4K (3x3 arcmin on the sky)
- Filters: TBD

Source URL: http://www.ctio.noao.edu/soar/content/sam-numbers

Links
[2] mailto:atokovinin@ctio.noao.edu

Back to SAM webpage [1]
Last change: Dec-23-2014, César Briceño
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