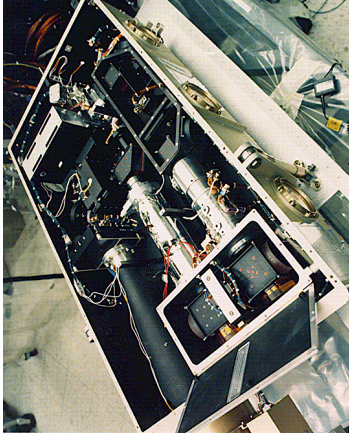
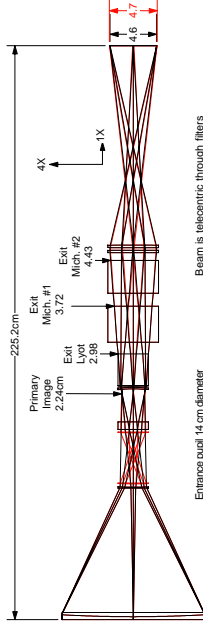


2.D - MDI Flight Optics Package



Superimposed Calibration and Imaging Modes



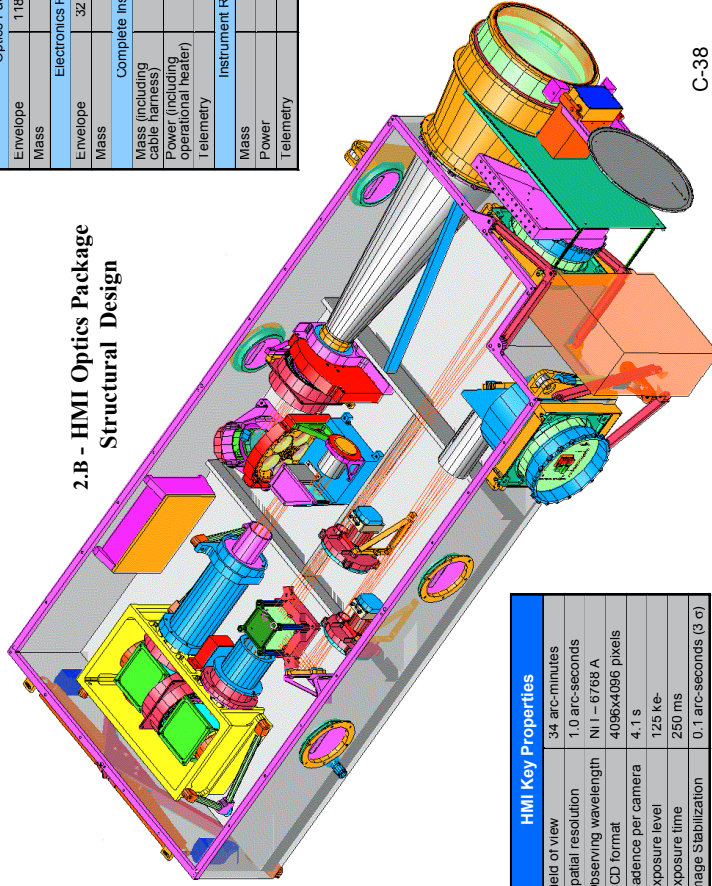
Beam is telecentric through filters
Focal ratio at final image 34.6
Focal ratio inside Lyot filter 30.3

Entrance pupil 14 cm diameter
ERL 485 cm, Total path 225 cm
Image size 4.60 cm for 32.64 arc-min

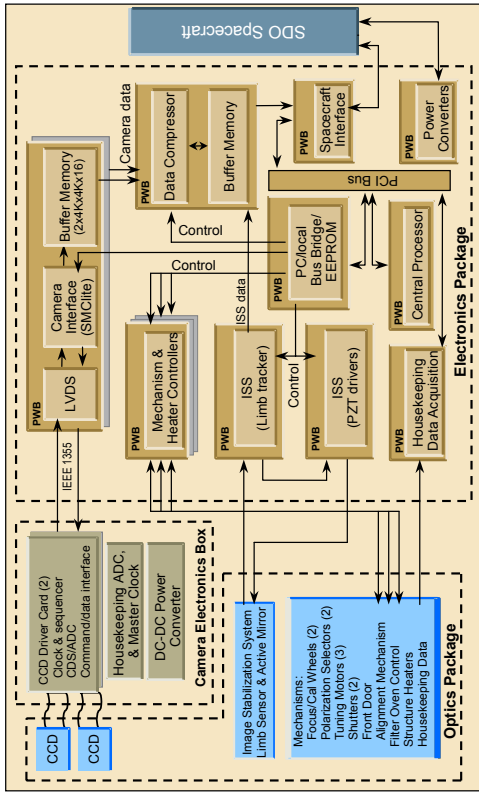
2.C - HMI Optical Design Raytrace

HMI Resources	
Optics Package	118 cm x 53 cm x 24 cm
Envelope	28 kg
Mass	28 kg
Electronics Package	32 cm x 28 cm x 21 cm
Envelope	15 kg
Mass	15 kg
Complete Instrument	48 kg
Mass (including cable harness)	60 W
Power (including operational heater)	50 Mbit/s
Telemetry	Instrument Reserves
Mass	9 kg
Power	12 W
Telemetry	5 Mbit/s

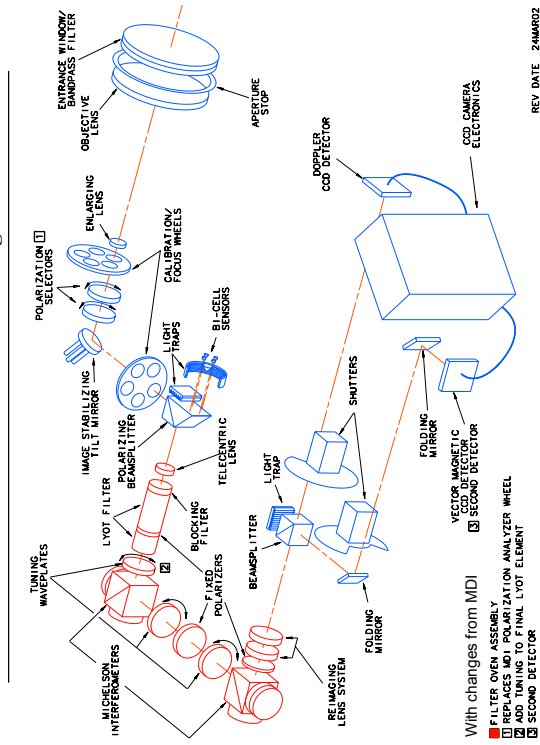
2.B - HMI Optics Package Structural Design



HMI Key Properties	
Field of view	34 arc-minutes
Spatial resolution	1.0 arc-seconds
Observing wavelength	NI - 6768 Å
CCD format	4096x4096 pixels
Cadence per camera	4.1 s
Exposure level	125 ke-
Exposure time	250 ms
Image Stabilization	0.1 arc-seconds (3 σ)



2.E - HMI Functional Block Diagram



With changes from MDI
 ■ FILTER OVER ASSEMBLY
 ■ REPLACES MDI POLARIZATION ANALYZER WHEEL
 ■ ORIGINAL LYOT ELEMENT
 ■ SECOND DETECTOR

2.A - HMI Optical Schematic and Layout