

MTW SPHERICAL TARGET CHAMBER: GENERAL SPECIFICATIONS

Laser Properties	
Pulse Duration	700 fs–10.0 ps
Wavelength	1053 nm ± 6 nm
Energy on Target	0-10.0 J
Intensity at TCC	2.0 E19 W/cm ²
Spot Diam at TCC	4.8 μm
Spot Stability	20 μm
Beam size coming into the Target Chamber	52 nm square

Off Axis Parabola (OAP)	
F#	2.5
Diameter	115 mm (4.53 in)
Focal Length	194 mm (7.63 in)
Coating	Gold with MLD
Turning Angle	20°
Steering mirror coat.	MLD
Steering mirror angle of reflection	61°

Target Chamber Ports				
Port opening diameter (in.)	Locations	Quantity	Bolt Circle Diameter (in.)	O-Ring Inner/Outer Diameter (in.)
4	Midpoints on Cubic Edge	12	5.128	4.25/4.58
6	Corners of Cube	8	7.128	6.25/6.58
8	Faces of Cube	6	9.128	8.25/8.58

Focal Spot Microscope (FSM)	
2× Objective	WD 34 mm
10× Objective	WD 30 mm
20× Objective	WD 20 mm
1/4 wave window	50 mm diam
Approx. Range	Y:402–462, X:326–416
Field of View (20×)	300 μm × 350 μm
Depth of Field (20×)	1.7 μm
Pixel Size: 20×, XC-ST70	0.55 × 0.65 μm/pixel
Repeatability (20×)	± 50 μm

Camera & Lenses	
SI-800	
Pixel Size	13.5 μm/pixel
Flange back dimension	21.401 mm
NT 47-271 Lens	
EFL	200 mm
BFL	193.9 mm
Diam	25 mm
Sony XC-ST70	
Flange back dimension	17.52 mm
Chip Size	8.8 × 6.6 mm 768 × 494 pixels
Pixel Size	11 × 13 μm
SI-800 Flanges	
SI-800-145	T-MT-C-191
SI-800-214	T-MT-C-191-1
SI-800-212	T-MT-C-191-2

Other	
GCC Base Pressure	High E-6 mbar
Target Viewing System Pixel Size	4.4 μm/pixel
Viewing System Flasher Wavelength	500 nm
Pinhole Cam. Mag.	8×
New Focus Pico Motor	0.5 in. travel

1/29/2024