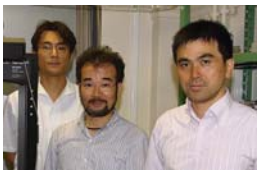
1" Mirror Mount

MM1000S

Material	Extra Super Duralumin (ESD)
Surface Finish	Anodized (color: FMD blue, sandblasted)
Thickness	37.5 mm
Weight	Approx. 70 g (except the optics)
Optics	ϕ1", thickness: 5 to 9.5 mm
Transmitted Light	ϕ11.6 mm(Straight), ϕ8.4 (45°)
Mounting Method	M6 TAP (Effective depth 10 mm)
Adjustment Screw	0.15 mm pitch screws (170TPI)
Adjustment Angle	±3°
Angular Resolution	0.00125° (22 μrad) when rotated 1°, 0.45° by one revolution
Remarks	· Mirror symmetry model is available. · M-Ring is equipped. (Patent No. 4963071, JP) · Soft-lock mechanism is employed. (Pat. application No. 2005-352867, JP) · Evaluation data measured by laser interferometer is attached to each product. · Ultra-fine adjustment with almost no backlash can be made by using the ϕ12 knobs attached to both tilting and rotating directions and the specially designed FMD tool SCR-ADJ.

FMD provides an ultrastable mirror mount equipped with M-Ring mechanism which was developed by Prof. Furusawa at the University of Tokyo and Prof. Masada at Tamagawa University. The photo below shows Mach-Zehnder interferometer which consists of 32 pcs of MM1000S and its optical path ends up 3200 mm long. Visibility of the interferometer is stable for a long time as whown in a test data.

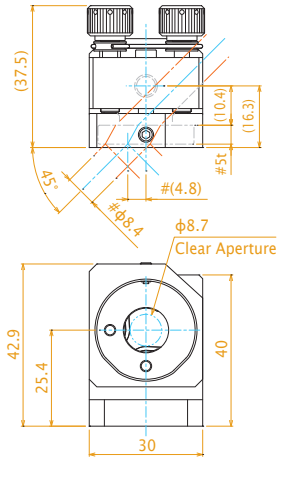


Tamagawa Univ. Prof. Masada | FMD Noguchi | Tokyo Univ. Prof. Furusawa

Prof. Furusawa is a world-renowned researcher in the quantum computation field, and the first person to succeed in the experiment of the "Unconditional Quantum Teleportation" in 1998.

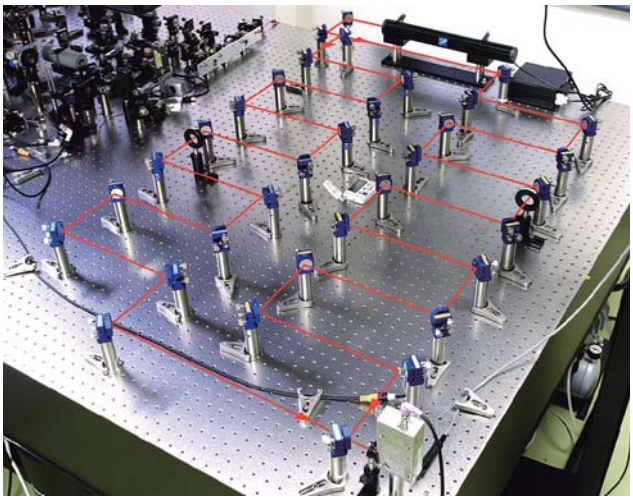
MM1000S_R_M

Right-handed version of 1" mirror mount

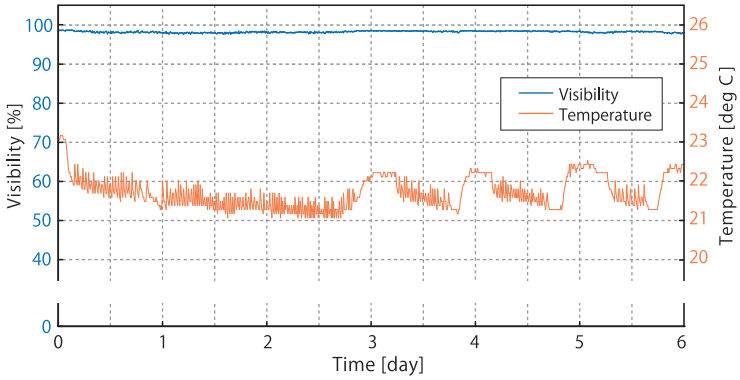


M-Ring

M-Ring mechanism enables a backlash-free adjustment and long term stability of MM1000S. (Patent No. 4963071, JP)



A set up of a Mach-Zehnder interferometer consists of 32pcs of MM1000S. (at Prof. Furusawa's lab)



An example of a stability test data.