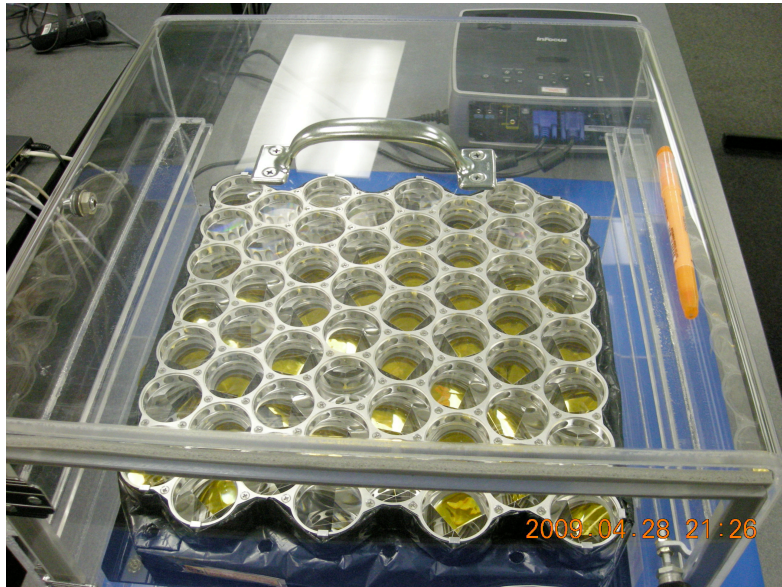


ILRS SLR Mission Support Request Form
Retroreflector Information

Satellite Name	QZS-1
Contact for Retroreflector Information	(1 st) Shinichi Nakamura (2 nd) Motohisa Kishimoto
Phone Number	+81-50-3362-4798 (Nakamura) +81-50-3362-2125 (Kishimoto)
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1. Array Type (spherical, hexagonal, planar, etc) to include a diagram or photograph

Planar Type, 56CCRs



2. Array manufacturer

HTSI/ITE
(Honeywell Technology Solutions Inc. / Instrumentation Technology Engineering Inc.)

3. Link (URL or reference) to any ground-tests that were carried out on the array

None

4. The LRA design and/or type of cubes was previously used on the following missions:

Prisms have same mechanical configuration as ETS-8, but the dihedral angles are different.

5. The 3-D location (possibly time dependent) of the satellite's mass center relative to a satellite-based origin:

At BOL, the satellite's mass center is given by (x,y,z)=(-1.1, 1.6, 1818.4) [mm].
At EOL, the satellite's mass center is given by (x,y,z)=(-1.2, 1.7, 1849.6) [mm]

6. The 3-D location of the phase center of the LRA relative to a satellite-based origin:

The phase center of LRA is given by $(x,y,z)=(-1150.0, -550.0, 4505.3)$ [mm]

7. The position and orientation of the LRA reference point (LRA mass-center or marker on LRA assembly) relative to a satellite-based origin:

Same as above



8. The position (x,y,z) of either the vertex or the center of the front face of each corner cube within the LRA assembly, with respect to the LRA reference point and including information of amount of recession of front faces of cubes:

Since JAXA does not have design right, JAXA can not say design information about LRA, which was made in USA.

9. The orientation of each cube within the LRA assembly (three angles for each cube):

10. The shape and size of each corner cube, especially the height:

Shape : Circle, Diameter : 1.6 in

11. The material from which the cube are manufactured (e.g. quartz)

Sprasil

12. The refractive index of the cube material, as a function of wavelength λ (micron)

Refraction Index = 1.46

13. Dihedral angle offset(s) and manufacturing tolerance:

0.8 arcsec(Average) +/- 0.5 arcsec

14. Radius of curvature of front surface of cubes, if applicable:

None

15. Flatness of cubes' surfaces (as a fraction of wavelength)
$\lambda/10$
16. Whether or not the cubes are coated and with what material:
Non coating