

Dwg#10240324

Notes 12 and 14 appear to be in conflict.

Is the assembly optically contacted or bonded?

If bonded please provide the bonding specification and fixture drawing.

Note 14 on drawing 10240324 is correct. The mirror base and compensator should be optically contacted or KOH bonded. There is no epoxy bonding or adhesive.

Remove note 12 from drawing 10240324. Also remove AR 3 and 4 from the item box.

Optical contacting or KOH bonding procedures are not specified by JPL. The procedure shall be described by the vendor and approved by JPL.

Notes 3a and 3b also appear to be in conflict.

Which surfaces get polished or ground and do the bevels get polished?

Remove note 3 A from drawing 10240324.

The polished surfaces all have a peak-to-valley (PV) specification.

a) Sheet 2 of drawing 10240324 calls out S1 as datum A of the 17mm * 27mm mirror base, which is optically contacted (or KOH bonded) to the S1 surface of the 4mm * 27mm compensator. The optically contacted surfaces are flat to $\lambda/10$ PV in note 6.

b) Sheet 2 also calls out the S2 surface which faces the outside world. Transmitted wavefront error through S2 is $\lambda/20$ PV in note 13. This holds for light transmitted through the optically contacted compensator and mirror base. It also holds for light into S2 and reflected back out through S2 by the Mask1 mirror.

c) Mask1 on surface S1 of the mirror base is mirror coated. Note 9 calls for the mask surface to be flat to $\lambda/20$ PV. The RPM specification (document JPL D-29325) paragraph 4.1.2 calls for transmitted/reflected wavefront error $\lambda/20$ PV. The specification is the tighter requirement, and drives the mask surface to be flat to $\lambda/40$ PV.