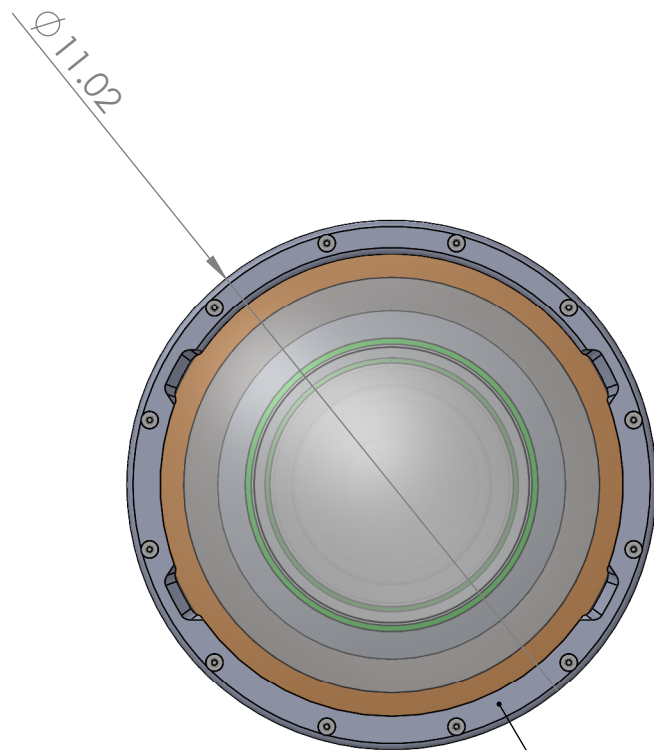
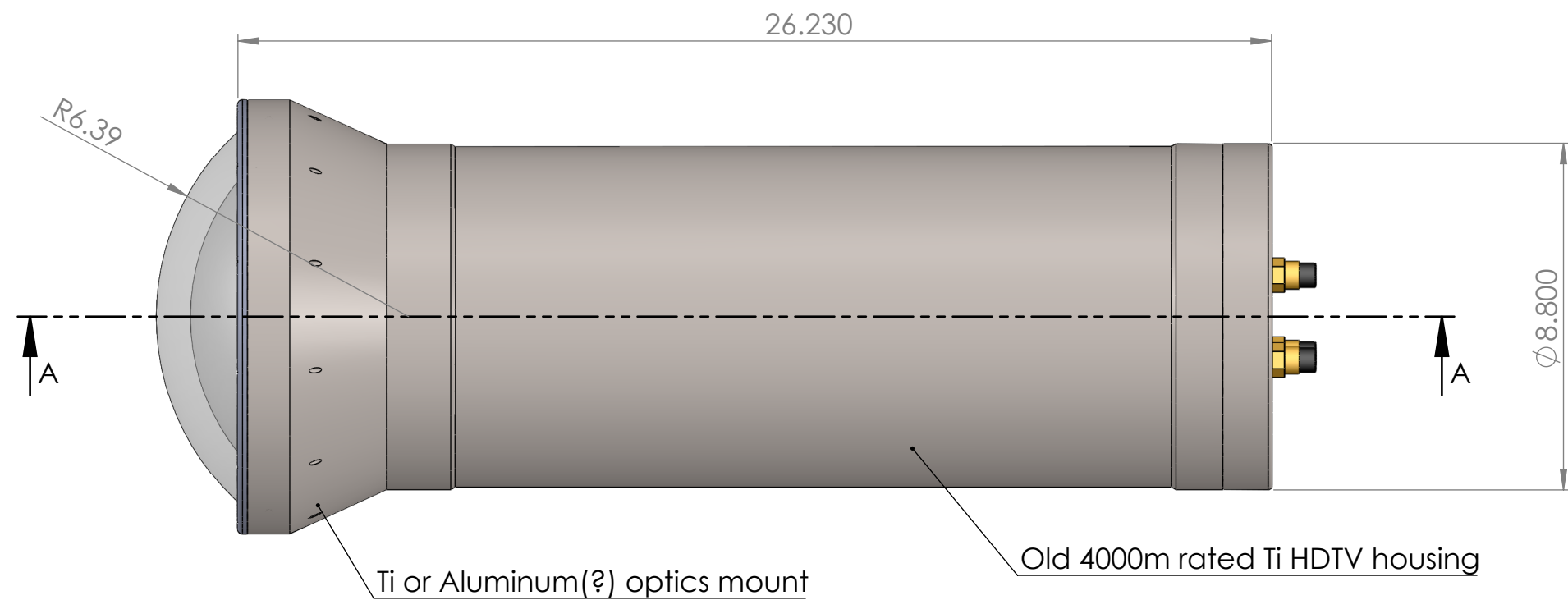
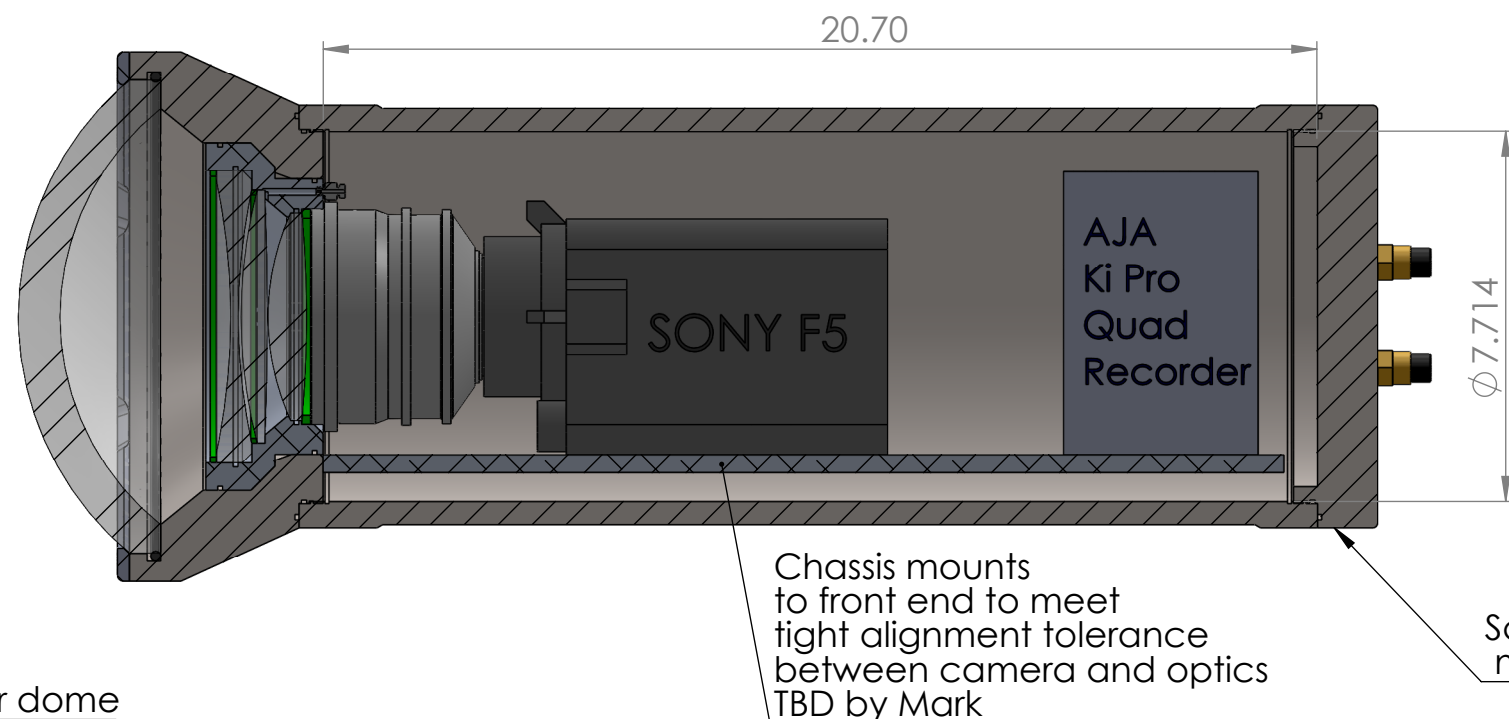


THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.



Plastic retainer for dome



Chassis mounts
to front end to meet
tight alignment tolerance
between camera and optics
TBD by Mark

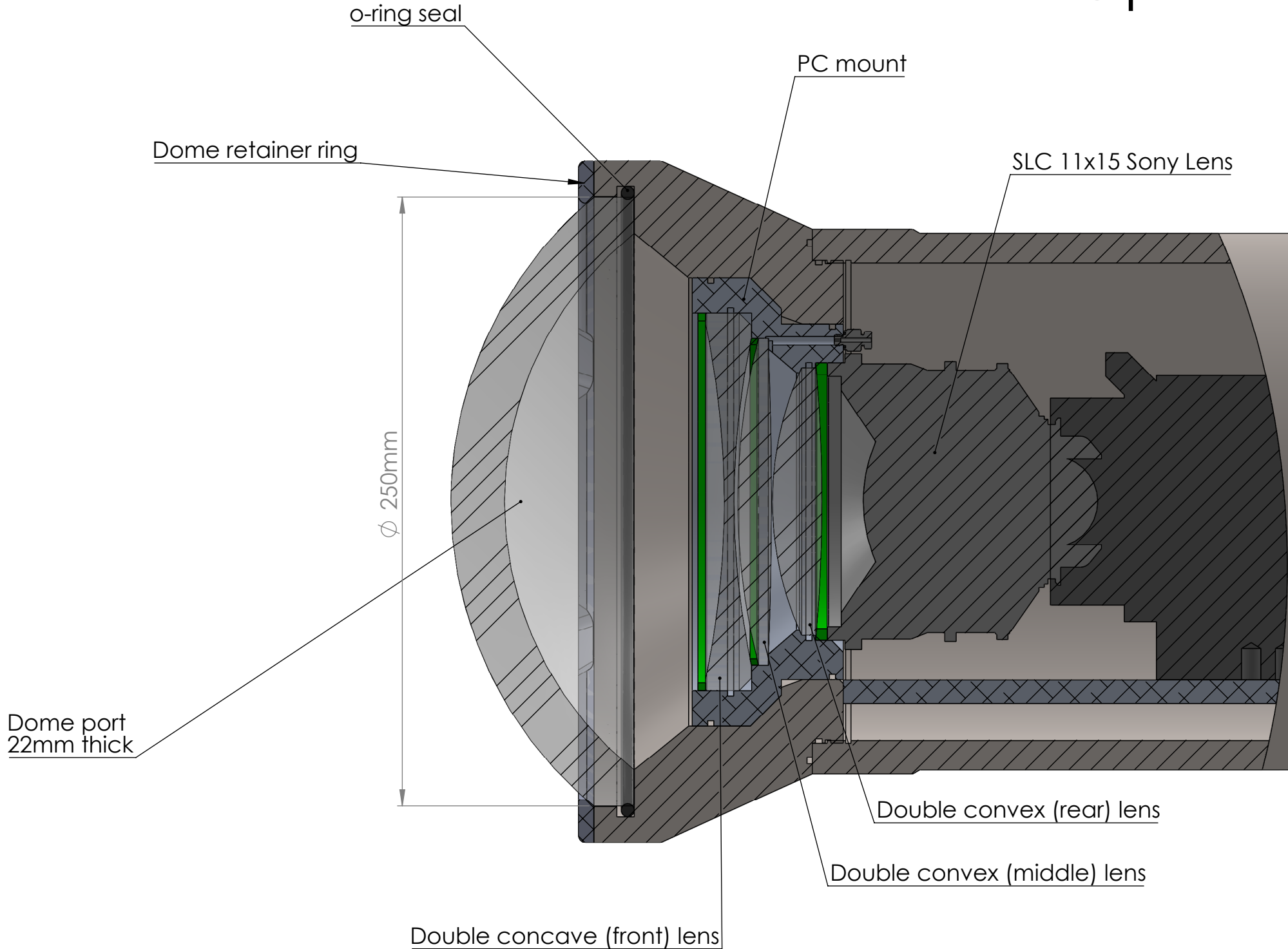
Screwed on endcap can be modified if necessary.

SECTION A-A
SCALE 1 : 4

Mass = 102 lb

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute											
1 PLACE DIM ±1/16				2 PLACE DIM ±.02				3 PLACE DIM ±.005				ANGLES ±1°		DRAWN Francois Cazenave		MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 			
1. DIMENSIONS ARE IN INCHES												ENGINEER Francois Cazenave							
2. DIMENSION LIMITS HELD AFTER PLATING.												CHECKED							
3. REMOVE BURRS AND SHARP EDGES .015 MAX.														PROJECT NO.					
4. MACHINED FILLET RADII .0150-.030.														PROJECT					
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005														I2Map_Camera_Housing_Assembly					
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX. .012 INCHES FOR SINGLE SURFACE.														SIZE B		DWG. NO.		REV.	
DO NOT SCALE DRAWING														SCALE 1:5				SHEET 1 OF 5	

Optical components



UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute		
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	Francois Cazenave	MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700		
1. DIMENSIONS ARE IN INCHES				ENGINEER	Francois Cazenave			
2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED				
3. REMOVE BURRS AND SHARP EDGES .015 MAX.				PROJECT NO.		I2Map_Camera_Housing_Assembly		
4. MACHINED FILLET RADII .0150-.030.				PROJECT				
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						SIZE B	DWG. NO.	REV.
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.						SCALE 1:5		SHEET 2 OF 5
DO NOT SCALE DRAWING				WEIGHT 102.10 lb.				

3/16" EPDM o-ring.
A70 durometer.
Seals and centers dome
The o-ring is placed so that hydrostatic pressure is exerted to the edge of the port, helping reduce deformation of dome and of metal retainer. This position also prevents o-ring extrusion.

Clearance is large enough to avoid metal to glass contact during deformation, even at 2200 PSI (1500m)

Retainer is held by 12 screws and can be used to insert dome in position

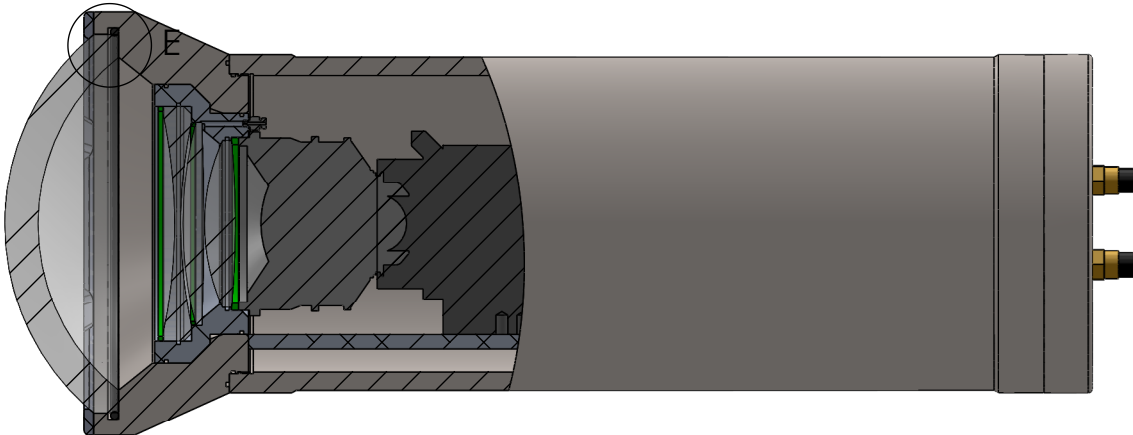
Chamfer is intentionally small to avoid reducing contact area between dome and kapton ring, and to minimize o-ring deformation.

5 mil Kapton (polyimide) ring (possibly adhesive backed).
Helps distribute load between glass and metal

Contact pressure at 1500m depth: 10KSI assuming even distribution. Pressure will likely be higher on inner edge.

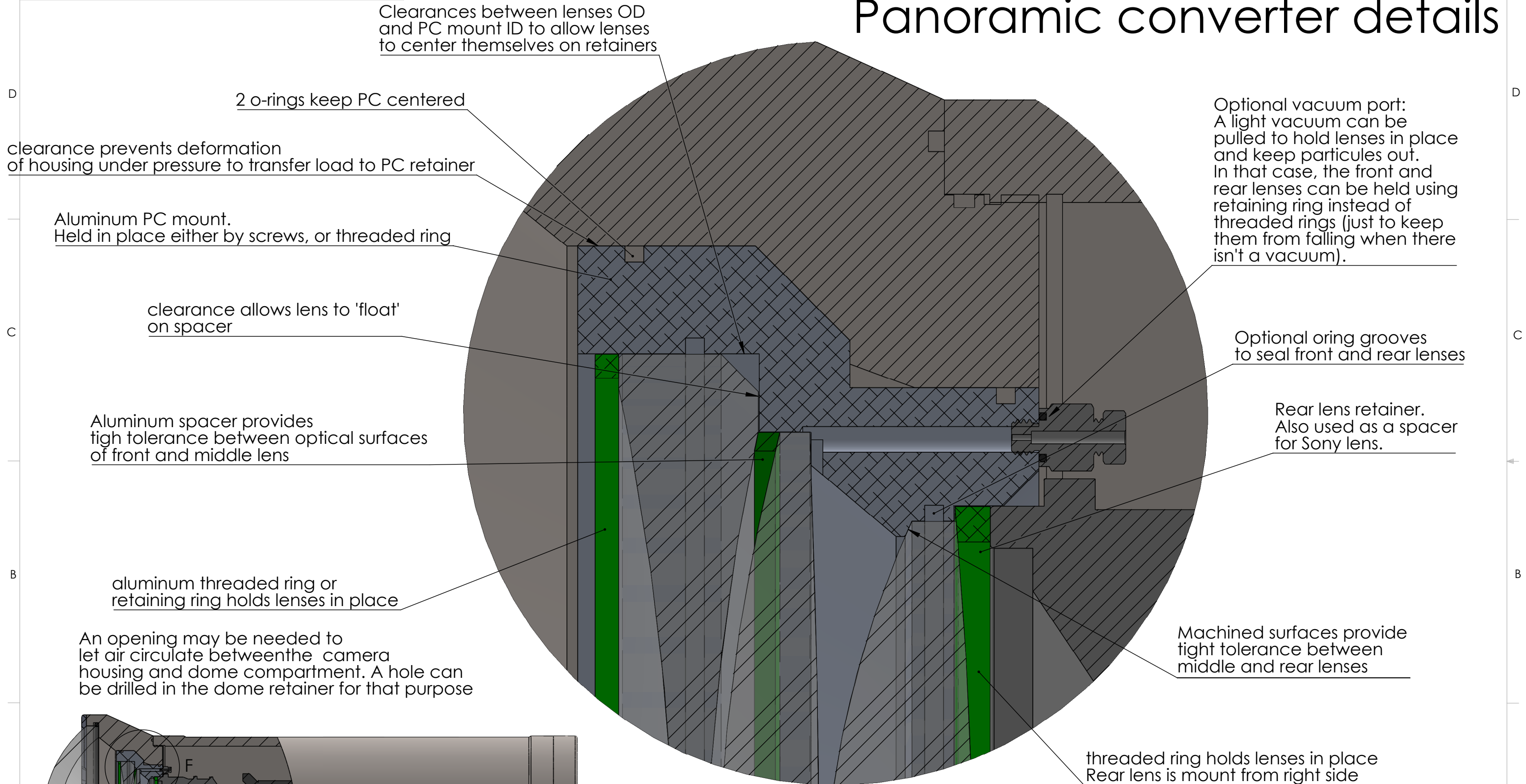
DETAIL E
SCALE 2 : 1

Dome port seal details



UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute		
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	Francois Cazenave	MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700		
1. DIMENSIONS ARE IN INCHES				ENGINEER	Francois Cazenave			
2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED		I2Map_Camera_Housing_Assembly		
3. REMOVE BURRS AND SHARP EDGES .015 MAX.				PROJECT NO.				
4. MACHINED FILLET RADII .0150-.030.				PROJECT		SIZE B	DWG. NO.	REV.
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				DO NOT SCALE DRAWING			SCALE 1:5	SHEET 3 OF 5
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				WEIGHT 102.10 lb.				

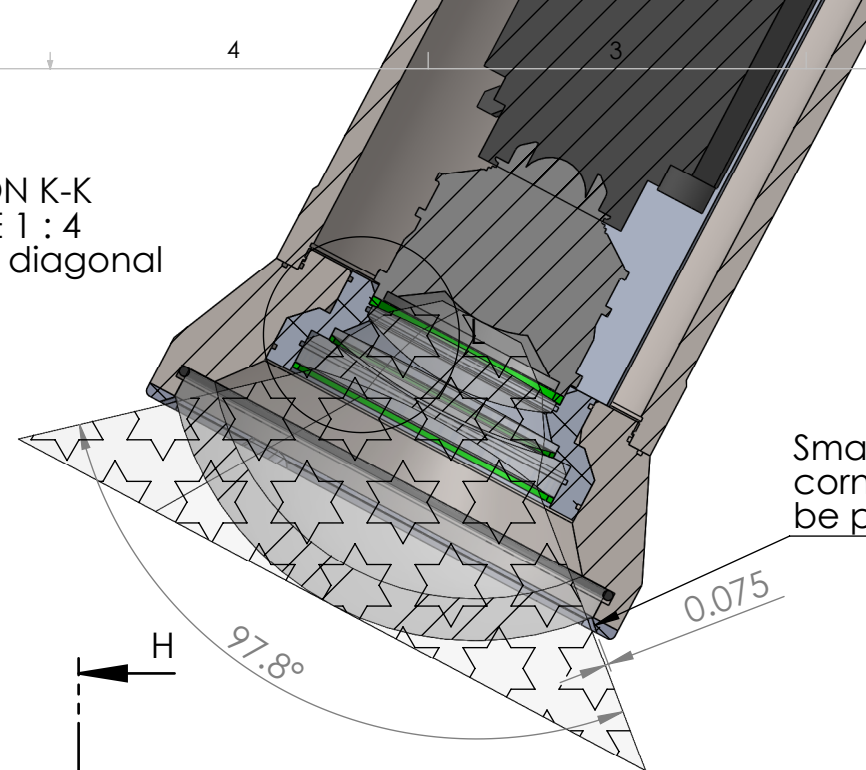
Panoramic converter details



DETAIL F
SCALE 2 : 1

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute		
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Francois Cazenave		MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700		
				ENGINEER Francois Cazenave				
				CHECKED		I2Map_Camera_Housing_Assembly		
				PROJECT NO.				
				PROJECT				
						SIZE B	DWG. NO.	REV.
						SCALE 1:5		SHEET 4 OF 5
				DO NOT SCALE DRAWING	WEIGHT 102.10 lb.			

SECTION K-K
SCALE 1 : 4
On Imager diagonal

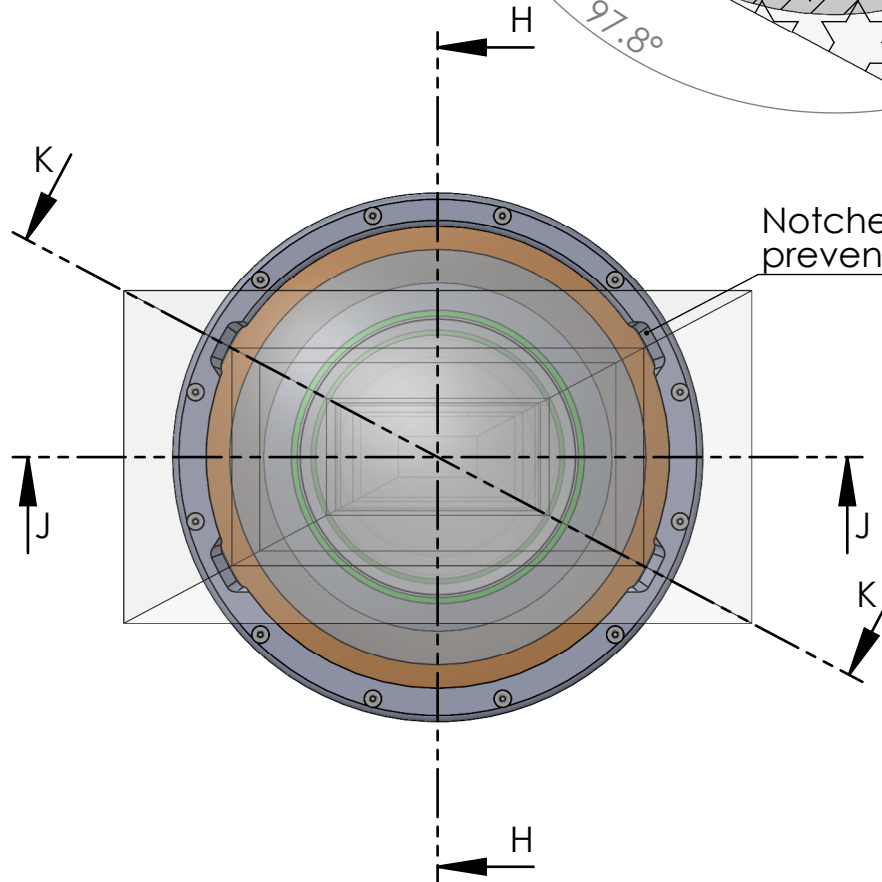


Small distance between CA corner and dome retainer may be problematic

0.075

97.8°

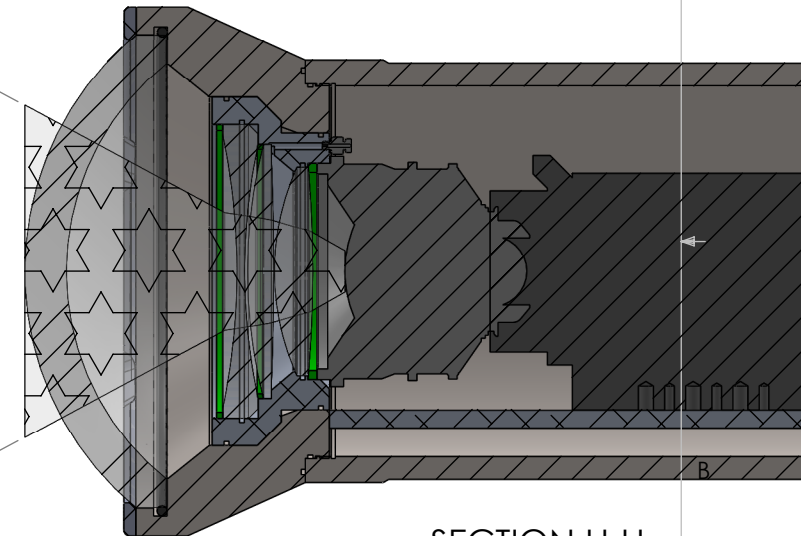
Notches in dome retainer prevent shading CA corners



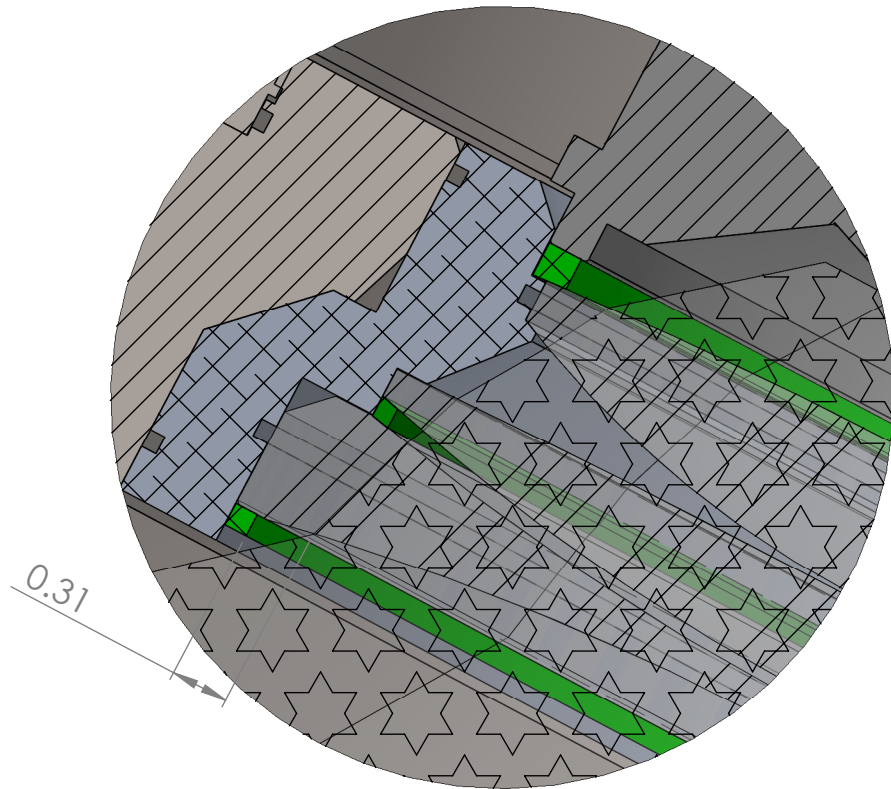
90.8°

56.4°

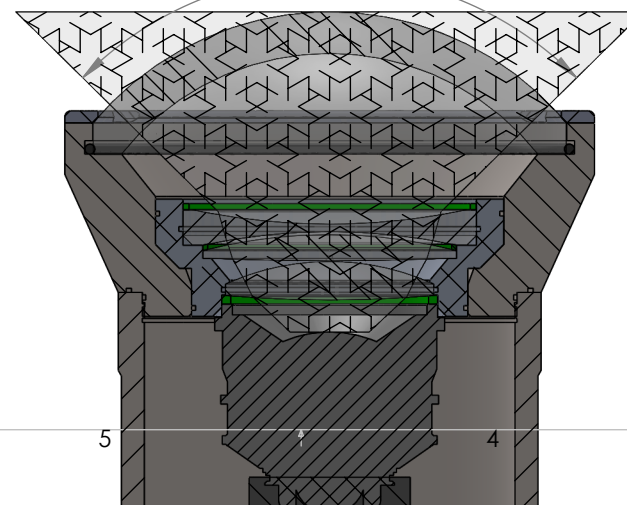
SECTION H-H
SCALE 1 : 4



DETAIL L
SCALE 1 : 1



SECTION J-J
SCALE 1 : 4



UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700		
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN				
1. DIMENSIONS ARE IN INCHES				ENGINEER	Francois Cazenave	I2Map_Camera_Housing_Assembly		
2. DIMENSION LIMITS HELD AFTER PLATING.				CHECKED				
3. REMOVE BURRS AND SHARP EDGES .015 MAX.				PROJECT NO.		SIZE B DWG. NO. REV.		
4. MACHINED FILLET RADII .0150-.030.				PROJECT				
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						SCALE 1:5 SHEET 5 OF 5		
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.								
DO NOT SCALE DRAWING				WEIGHT 102.10 lb.				

Clear aperture details