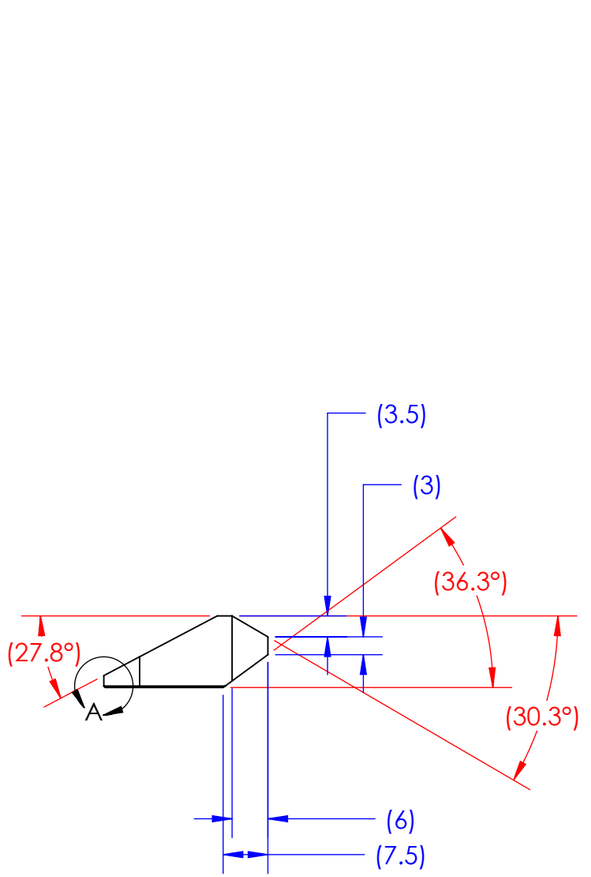
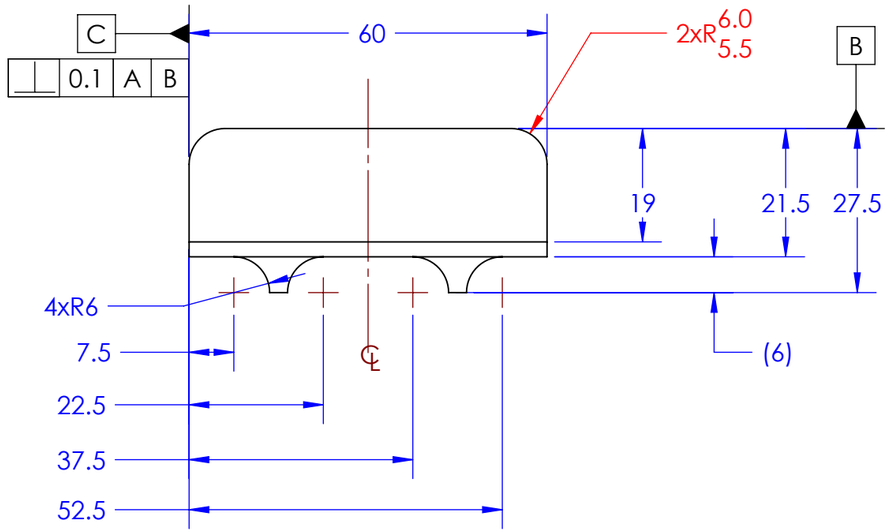
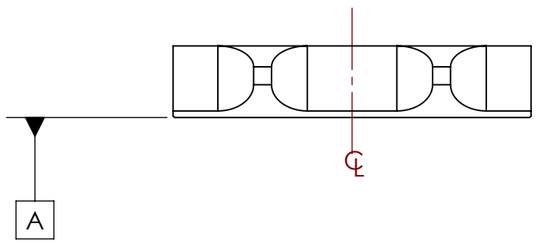
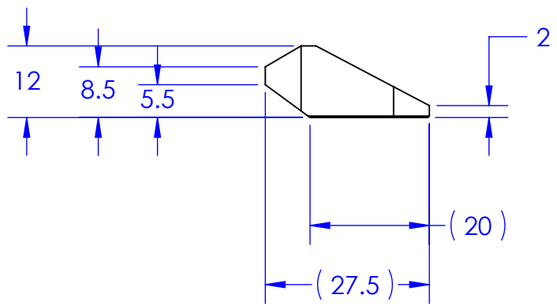
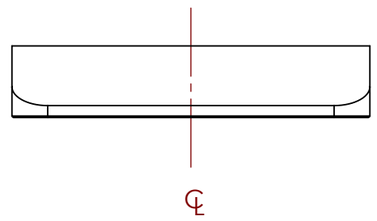
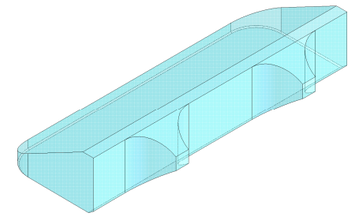


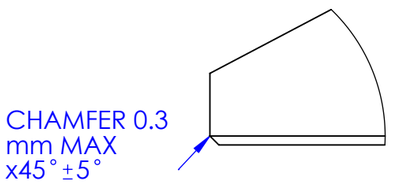




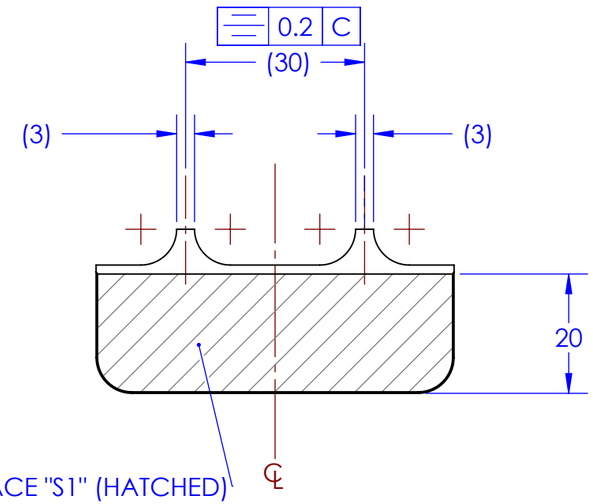








DETAIL A
SCALE 6 : 1



MANUFACTURING NOTES

1. Surface finish all surfaces to minimise surface cracks except "S1"
   Step 1: optical polish to Ra < 50 nm
   Step 2: flame polish all surfaces and edges except surface "S1" prior to the final polish on surface "S1".
2. Surface "S1" polished to λ/10 (λ = 633 nm) peak-to-valley over 95% of the surface area. There shall be no peaks around the edges.
3. All ears to be delivered with a surface map of surface "S1" measured over 100% of the surface area.
4. All machining and polishing fluids shall be water soluble and free of silicone, sulfur and chlorine
5. Ears to be manufactured from blanks 28 x 62 x 30 mm (2 ears from each blank)
6. Edge chipping and scratching of surfaces to be minimised

PARTS LIST

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. Do not scale from drawing
2. Symmetric about centre line

DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
± 0.1 MAX

ANGULAR ± 0.2 °

MATERIAL
Suprasil 312

FINISH
see manufacturing notes

	NAME	DATE
DRAWN	MVV	10/12/08
CHECKED	R.JONES	10/12/08
APPROVED		

LIGO
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
IGR, GLASGOW UNIVERSITY GEO 600 GROUP

SYSTEM Advanced LIGO

SUB-SYSTEM SUS

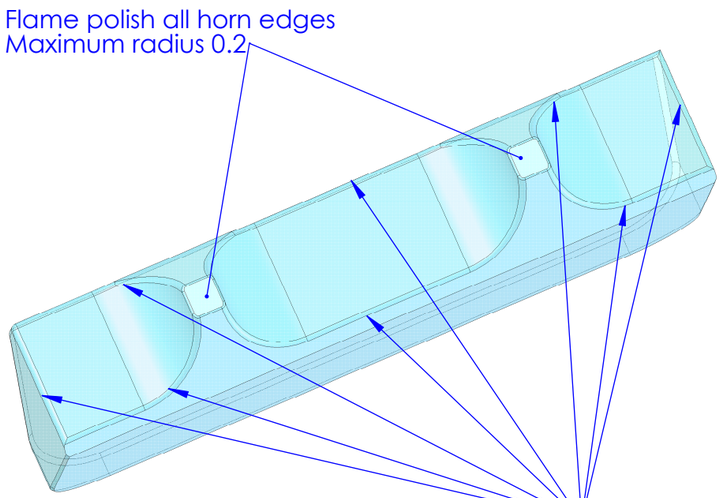
NEXT ASSY ETM/ITM QUAD

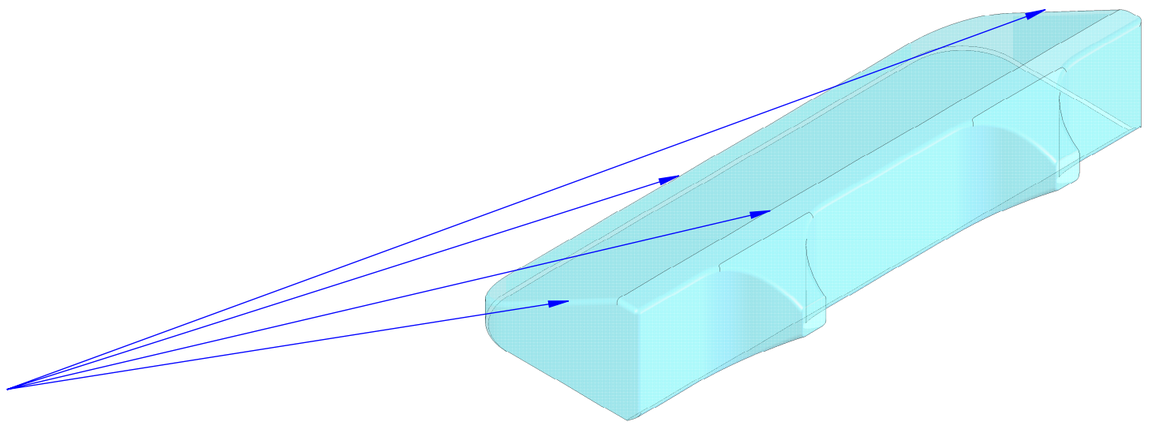
PART NAME
Production Ear

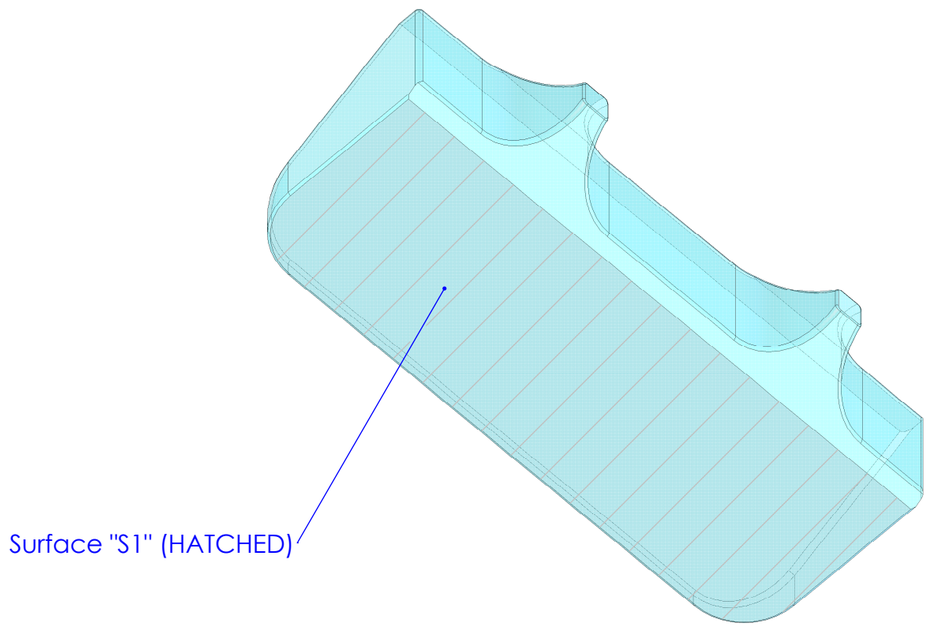
SIZE B | **DWG. NO.** D080751 | **REV.** v3

SCALE: 1:1 | **PROJECTION:** | SHEET 1 OF 2

FLAME POLISHING AND ANNEALING INSTRUCTIONS







MANUFACTURING NOTES

1. Ears shall be cleaned in a 9% hydrofluoric acid solution prior to flame polishing
2. Flame polish all surface and edges except surface "S1" and edges of surface "S1"
3. Flame polishing and annealing shall not change overall dimensions of the parts as in sheet 1
4. Annealing shall be done at 1120°C for 2 hours.
5. Extreme care shall be taken to not damage any surface in any way by scratching or chipping

PARTS LIST

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. Do not scale from drawing
2. Symmetric about centre line

DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
± 0.1 MAX

ANGULAR ± 0.2 °

MATERIAL
Suprasil 312

FINISH
see manufacturing notes

	NAME	DATE
DRAWN	MVV	10/12/08
CHECKED	R.JONES	10/12/08
APPROVED		

LIGO
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
IGR, GLASGOW UNIVERSITY GEO 600 GROUP

SYSTEM	Advanced LIGO
SUB-SYSTEM	SUS
NEXT ASSY	ETM/ITM QUAD
PART NAME	Production Ear
SIZE	B
DWG. NO.	D080751
REV.	v3
SCALE:	1:1
PROJECTION:	
SHEET 2 OF 2	