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| **APPROVALS** | **DATE** | **REV** | **DCN NO.**  | **BY**  | **CHECK**  | **DCC** | **DATE** |
| **AUTHOR: S. Waldman** | **11-08-2011** |  |  |  |  |  |  |
| **CHECKED:** |  |  |  |  |  |  |  |
| **APPROVED:**  |  |  |  |  |  |  |  |
| **DCC RELEASE** |  |  |  |  |  |  |  |

# Description

A 20x23x10 mm (WxDxH) fused silica prism with a thru hole

# Material

Corning HPFS 7980 (high purity fused silica, UV grade)

# Dimensions

**FLAT-FLAT**

**Width**: 20.0 ±0.1mm

**Height:** 23.0 ±0.1mm

**Thickness** (thin edge): 10.0mm ±0.1mm

**Wedge:** no specification

**Perpendicularity:** 90.0° ±30” front surface to bottom surface (see figure)

**Chamfer:** 1mm chamfer on back/top edge (see figure)

 Minimal chamfer to prevent chipping on other edges

**Marking:** Etched or scribed “E1101087” on side

**Through hole:** 9 ±0.05mm hole located 15±0.05mm from bottom on centerline (see figure)

See [D1102069](https://dcc.ligo.org/cgi-bin/private/DocDB/ShowDocument?docid=74178) for a machine drawing.

# Surface Specification

**Side 1 (Front and Back)**

to be polished for Epoxy bonding

Micro-roughness: <10 nm rms over central 80%,

Surface figure: < 1 µm pk-pk over entire surface

**Side 2 (Bottom)**

to be polished for bonding

Micro-roughness: <10 nm rms over central 80%

Surface figure: < 1 µm pk-pk over entire surface

**Side 3 (sides and top)**

Inspection polish

**Side 4 (thru hole)**

Inspection polish