



THIS DOCUMENT IS THE PROPERTY OF G&H (PALO ALTO) LLC. IT IS NOT TO BE REPRODUCED OR DISCLOSED IN WHOLE OR IN PART OTHER THAN BY EMPLOYEES OF G&H (PALO ALTO) LLC AND ITS CONTRACTED REPRESENTATIVES AND DISTRIBUTORS ANY EXCEPTION REQUIRES THE WRITTEN CONSENT OF AN AUTHORIZED REPRESENTATIVES OF G&H (PALO ALTO) LLC.

REVISIONS					
ZONE	REV	DESCRIPTION	ECO NO.	APPD.	DATE
ALL	B	Template Update	20621	Smith	01/27/14

**Document**  
**01/31/14**  
**Control**

- Notes:
- Material  
Lithium Niobate optical grade
  - Orientations
    - Wafer surface is normal to <X> ±0.2°
    - Flats
      - Primary flat is normal to <+Z> ±0.25°.
      - Secondary flat is 135° ±1° clockwise from the primary flat when viewing the -X face.
  - Edge
    - All edges rounded with R0.57 ±0.08mm.
    - No more than 2 edge chips greater than 0.5mm in penetration and 1.0mm in length.
  - Surfaces
    - Side 1 <-X> face: Polished 10-5 scratch-dig with 1mm edge exclusion. No pits or scratches visible with reflected light and unaided eye.
    - Side 2 <+X> face: Polished 20-10 scratch-dig with 1mm edge exclusion. Light pits and scratches visible with reflected light and unaided eye allowed.
  - Flatness
    - warp < 50µm
    - TTV < 25µm
  - Laser Marking
    - Center text under the primary flat on the +X side. Begin with X followed by a 4-digit boule serial number separated by a dash from a 2-digit wafer sequence number (X0001-01).
    - FONT: SEM 15x23  
HEIGHT=3.0mm, WIDTH=1.5mm, SEPARATION=2.2mm  
DISTANCE FROM FLAT=1mm from top of text.
  - Test Data - Supply certificate of analysis sheet 97-02604-10-110.

FINISH: SEE NOTES		CONTRACT NUMBER	
MATERIAL: SEE NOTES		DR. Scholz	01/18/10
SPEC. NO.		CHK.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPD.	
TOLERANCES		APPD.	
INCHES	MILLIMETERS	DESIGN ACTIVITY APPROVAL:	
.XX ± .01	X.XX ± 0.25		
.XXX ± .005	X.XXX ± 0.125	CUSTOMER APPROVAL:	
.XXXX ± .0020			
ANG ± .5°	SURFACE FINISH ✓	DO NOT SCALE DRAWING	

**Gooch & Housego**

TITLE: LNIO 125Ø x 1.0mm, -X Po/Po +Z FLT, TTV <25µm, Laser Mark

SIZE: A DWG. NO. 97-02604-10 REV. B

SCALE: N/A SH. 1 OF 1