

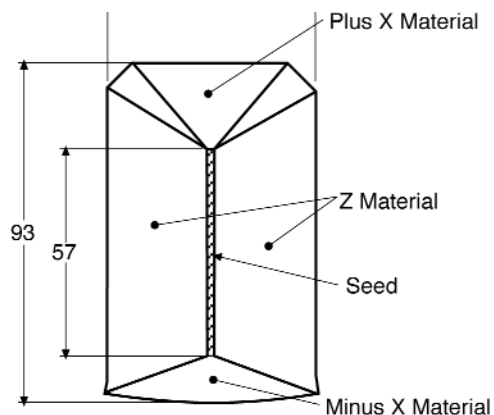
DATA SHEET

LOW DISLOCATION LUMBERED BARS

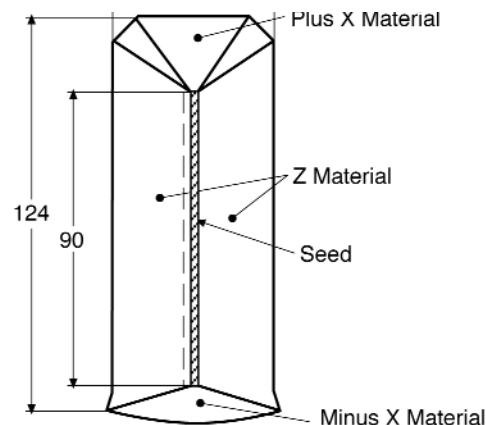
General

This document provides typical specification ranges for single crystal cultured quartz material grown on low dislocation Z-plate seeds. The individual as-grown crystals can be crystallographically oriented and lumbered to produce a bar that takes advantage of the full X-height of the as-grown crystal or to produce multiple bars of equal X-height by making cuts in the YZ plane. Lumbered bars can be provided with or without seed.

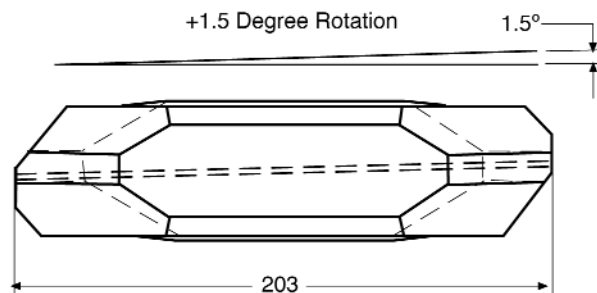
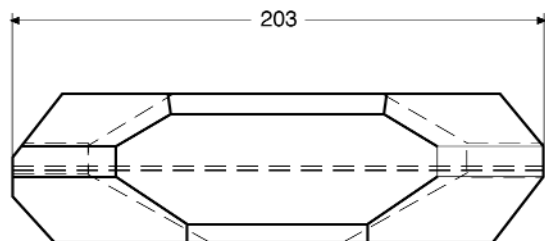
This type of cultured quartz crystal is usually specified when an etching process involving photolithography is employed to create quartz blanks that are extremely small, complex in shape or very thin. Examples of such applications are tuning fork resonators, high frequency filters and gyro sensors. It may also be specified for certain high-reliability space or defense applications.



57 mm Seed 0° Cross Section



90mm Seed 1.5° Cross Section



Section Drawing

References

International Electrotechnical Commission Standard, CEI/IEC 758, Second edition, 1993-04.

Institute of Electrical and Electronic Engineers Standard on Piezoelectricity, ANSI/IEEE Std. 176-1987.

