DIMENSIONAL

VLSI Standards

# Ultra Thick Step Height Standards (Silicon Die)

TAKE A STEP UP!  Ultra Thick Step Height Standards (UTSHS) are designed to calibrate mechanical or optical surface profilers where steps of 100 µm or above are required. These standards consist of a 10 mm x 10 mm silicon die mounted on a 50 mm x 50 mm x 5 mm anodized aluminum substrate.

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Pictured is a nominal 150 µm Ultra Thick Step Height Standard.

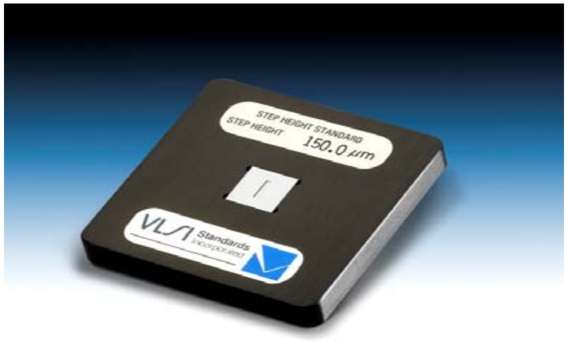
## PRODUCT DESCRIPTION

The Ultra Thick Step Height Standards consist of a trench etched into a silicon die. The width of the trench is approximately 1 mm.  The length of the trench is approximately 4.5 mm.  The calibrated area is clearly marked with pointers. The single crystal silicon material that the standard is made of assures a very flat and smooth working surface as well as parallelism of the top and bottom surface. These standards are extremely accurate with a stated 0.05% or better uncertainty. The standard is mounted on an extremely flat, scratch resistant, anodized aluminum substrate.

## PRODUCT SPECIFICATIONS

- **Nominal Step Heights:**
  150 µm, 200 µm, and 250 µm
- **Silicon Die Size:**
  10 mm x 10 mm
- **Substrate Size**
  50 mm x 50 mm x 5 mm
- **Uncertainty**
  0.05% or better.
- **Traceability**
  Traceable through PTB Calibrated Specimens

Revision UTSHS092707
Specifications subject to change.



## UTSHS

Ultra Thick Step Height Standard

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|---|---|
| Application: | Step Height Calibration |
| Equipment: | Optical and Mechanical Profiler |
| Features: | Step height etched into silicon |
| Traceability: | NIST |
| Product Range: | 150 µm – 250 µm |

| | Anodized Aluminum Substrate |
|---|---|
| Step Height (µm) | 50 mm x 50 mm x 5 mm |
| 150.0 | UTSHS-150 |
| 200.0 | UTSHS-200 |
| 250.0 | UTSHS-250 |