

SKW Associates, Inc.

3370 Victor Court

Santa Clara, CA 95054

Phone (408) 919-0094

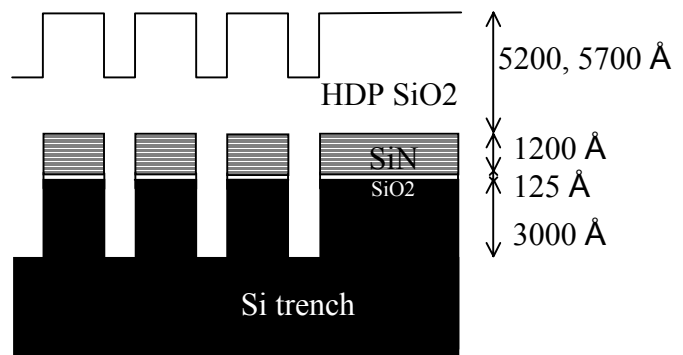
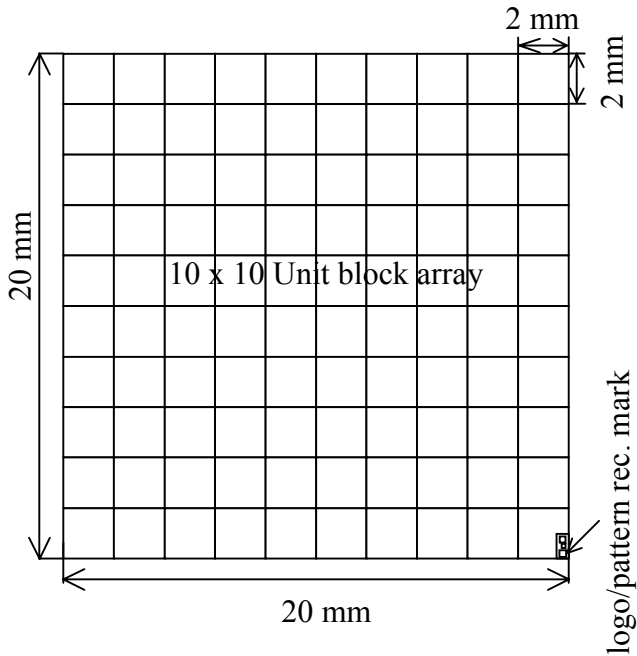
Fax (408) 919-0097

Email: skw@testwafer.com

<http://www.testwafer.com>

SKW 3-5 300mm Wafer Specifications

DATE: May 15, 2004



Cross Sectional View

SKW 3-5 Mask Floor Plan

PARAMETER	NOMINAL	TOLERANCE
Patterning		
Center Die X Location	-10.000 mm	+/- 10 μm
Center Die Y Location	-10.000 mm	+/- 10 μm
Die Size: X	20 mm	+/- 10 μm
Die Size: Y	20 mm	+/- 10 μm
Die Stepping	20 μm	+/- 100 μm
Wafers must be patterned all the way to the edges of the wafer, i.e. no area anywhere on the wafer unpatterned. (Under certain stepper operating conditions, 2 mm edge edge exclusion is allowed.)		

PARAMETER	NOMINAL	TOLERANCE
CD Variation (measured on shallow trenches)		
Lot-to-Lot	250 nm	+/- 10 nm
Within-Lot (Wafer-to-Wafer)		+/- 10 nm
Within-Wafer		+/- 10 nm
Within-Die (measured on 9 trenches)		+/- 14 nm
Raised area thickness (HDP CVD Oxide fill)		
Lot-to-Lot	5200 or 5700 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
Raised area thickness (Nitride)		
Lot-to-Lot	1200 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
Raised area thickness (Pad Oxide)		
Lot-to-Lot	125 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
Silicon Trench Depth		
Lot-to-Lot	3000 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 10 %
Within-Die		+/- 10 %