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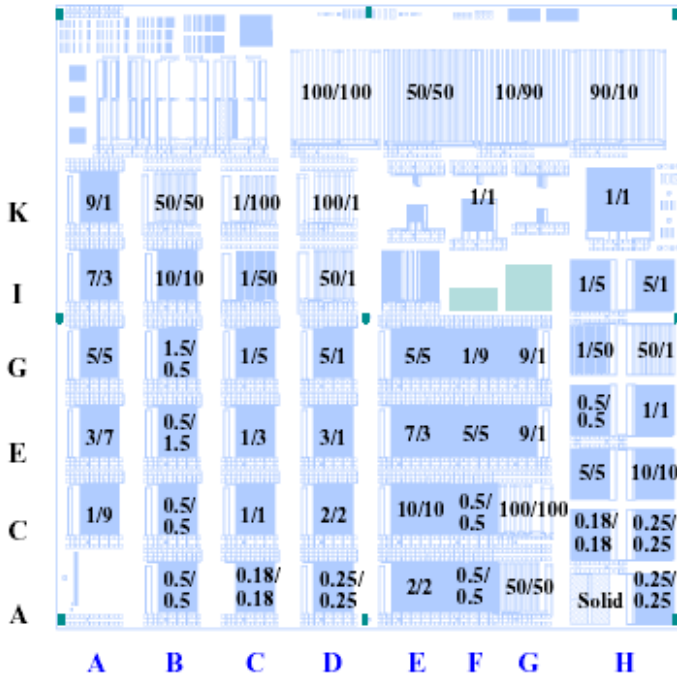
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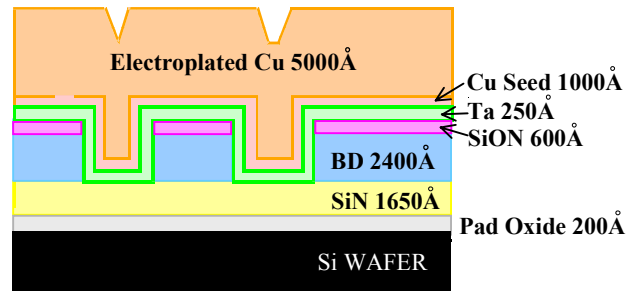
<http://www.testwafer.com>

SKW 6-3.18TN BD/SiON Wafer Specifications

DATE: AUg 18, 2004



6-3BD(0.18) Mask Floor Plan



Cross Sectional View

PARAMETER	NOMINAL	TOLERANCE
Patterning		
Center Die X Location	-10.000 mm	+/- 100 μm
Center Die Y Location	-10.000 mm	+/- 100 μm
Die Size: X	20 mm	+/- 10 μm
Die Size: Y	20 mm	+/- 10 μm
Die Stepping (X /Y)	360 / 180 μm	+/- 10%
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
Line CD Variation		
(measured on 2 μm structure)		
Lot-to-Lot	2 μm	+/- 10 nm
Within-Lot (Wafer-to-Wafer)		+/- 10 nm
Within-Wafer		+/- 10 nm
Within-Die (measured on 9 trenches)		+/- 10 nm
Pad Oxide thickness		
Lot-to-Lot	200 \AA	+/- 5 %
Within-Lot (Wafer-to-Wafer)		+/- 5 %
Within-Wafer		+/- 3 %
Within-Die		+/- 3 %
SiN film thickness		
Lot-to-Lot	1650 \AA	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
Black Diamond film thickness		
Lot-to-Lot	2400 \AA	+/- 8 %
Within-Lot (Wafer-to-Wafer)		+/- 8 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
SiON thickness		
Lot-to-Lot	600 \AA	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %

PARAMETER	NOMINAL	TOLERANCE
PVD Ta film thickness		
Lot-to-Lot	250 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
PVD Cu film thickness		
Lot-to-Lot	1000 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %
ECD Cu film thickness		
Lot-to-Lot	5000 Å	+/- 10 %
Within-Lot (Wafer-to-Wafer)		+/- 10 %
Within-Wafer		+/- 5 %
Within-Die		+/- 5 %

Table 8. Direct Overlap: M1 Module Information

Module Name	DUT(s)	LW(μm)	Ls(μm)	Line Length (μm)
BB	1-11	0.13	0.13	3220
BA	1	0.13	Isolated	3185
	2-6	0.13	0.13	3230

Table 12. M1 Module Information

Module Name	DUT(s)	LW(μm)	Ls(μm)	Line Length (μm)
BB	1-11	0.13	0.13	3220
BA	1	0.13	Isolated	3185
	2-6	0.13	0.13	3230
CB	1-11	0.18	0.18	3220
CA	1	0.18	Isolated	3185
	2-6	0.18	0.18	3230.68
DB	1-11	0.25	0.25	3220
DA	1	0.25	Isolated	3185
	2-6	0.25	0.25	3230.75
BD	1-11	0.5	0.5	3220
BC	1	0.5	Isolated	3185
	2-6	0.5	0.5	3231
BF	1-11	0.5	1.5	3221
BE	1	0.5	Isolated	3185
	2-6	0.5	1.5	3232
CD	1-11	1	1	3220
CC	1	1	Isolated	3185
	2-6	1	1	3231.5
BH	1-11	1.5	0.5	3219
BG	1	1.5	Isolated	3185
	2-6	1.5	0.5	3231
CF	1-11	1	3	3222
CE	1	1	Isolated	3185
	2-6	1	3	3233.5
DD	1-11	2	2	3220
DC	1	2	Isolated	3185
	2-6	2	2	3232.5
DF	1-11	3	1	3218
DE	1	3	Isolated	3185
	2-6	3	1	3231.5
CH	1-11	1	5	3224
CG	1	1	Isolated	3185
	2-6	1	5	3235.5
DH	1-11	5	1	3216
DG	1	5	Isolated	3185
	2-6	5	1	3231.5
AD	1-11	1	9	3228
AC	1	1	Isolated	3185
	2-6	1	9	3239.5
AF	1-11	3	7	3224
AE	1	3	Isolated	3185
	2-6	3	7	3237.5
AH	1-11	5	5	3220
AG	1	5	Isolated	3185
	2-6	5	5	3235.5
AJ	1-11	7	3	3216