

# 300SA Stage Accuracy Report

Customer Name:	GF - Singapore
System Description:	300SA Prober with ATT Chuck
System #:	QM2

# 25C Glass Accuracy

Wafer Used:	Precision Glass			
Measurement Method:	Image Recognition *Typical measurement uncertainty is +-1ur **See Map on following page for die tested			
Minimum Error:	Xmin: -8.5um	Ymin: -8.2um		
Maximum Error:	Xmax: 7.6um	Ymax: 11.2um		
Specification:	+-5um			
Pass/Fail:	PASS			

# 25C Glass Accuracy

Wafer Used:	Precision Glass	
Measurement Method:	Image Recognition *Typical measurement uncertainty **See Map on following page for die	
Minimum Error:	Xmin: -2.1um	Ymin: -4.2um
Maximum Error:	Xmax: 5.3um	Ymax: 3.7um
Specification:	+-5um	
Pass/Fail:	PASS	

# 25C Glass Accuracy

Wafer Used:	Precision Glass		
Measurement Method:	Image Recognition *Typical measurement uncert **See Map on following page	ainty is +-1um for die tested	
Minimum Error:	Xmin: -2.4um	Ymin: -2.2um	
Maximum Error:	Xmax: 3.2um	Ymax: 2.0um	
Specification:	+-5um		
Pass/Fail:	PASS		

Performed by:	Remy Orans
Date:	29 Jul 2018

Signature:	
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#### X Axis Error Map (um)

13														-0.7													
12									3.6	2.0	1.4	-0.1	0.9	0.6	-0.2	-0.2	-0.4	-0.5	-1.3								
11								2.6	3.8	2.2	0.9	-1.2	0.2	-0.1	0.0	0.0	-1.5	-1.8	-0.8	-0.2							
10						4.6	4.8	2.8	4.0	3.2	1.9	1.2	1.9	2.4	2.1	2.1	0.7	-0.2	-0.3	-1.1	-3.6	-3.6					
9					4.5	4.6	5.9	3.1	3.0	1.9	2.1	2.0	-0.2	1.3	0.4	0.4	1.5	0.0	-1.6	-0.3	-2.1	-4.3	-4.1				
8				3.1	4.7	4.5	2.9	2.9	2.9	0.6	0.2	2.0	0.0	1.4	0.1	0.1	-1.4	-0.8	-0.4	-1.0	-2.6	-0.9	-0.4	-1.9			
7				3.9	3.3	3.9	4.6	4.3	2.9	2.6	0.9	1.2	0.1	2.0	1.1	1.1	-0.2	0.2	-0.4	-0.3	-3.5	-3.0	-2.6	-2.6			
6			4.4	4.3	4.0	4.1	4.9	3.8	2.2	2.9	3.2	3.7	-0.9	0.2	0.5	0.5	1.9	0.9	0.0	1.2	-1.0	-0.9	-0.5	-1.3	-3.9		
5		3.7	2.7	3.5	2.6	4.6	4.3	3.9	2.1	1.5	0.7	3.6	0.7	1.0	1.4	1.4	0.1	0.3	-1.1	0.0	-2.4	-0.1	-2.5	-2.6	-1.6	-2.3	
4		4.0	3.5	4.1	4.6	4.6	3.0	4.2	3.1	4.3	1.5	3.8	0.8	2.4	1.9	1.9	0.4	1.5	0.0	0.4	-1.8	-1.9	-0.9	-1.8	-0.9	-1.6	
3		4.8	5.7	4.4	5.8	4.7	5.9	5.9	2.5	1.6	1.7	4.2	0.5	2.5	0.0	0.0	0.3	1.8	-0.9	2.0	-0.5	-1.7	-0.7	-0.5	-2.3	-1.9	
2		4.9	5.4	4.6	4.2	4.7	4.5	4.5	2.9	4.5	3.6	5.0	2.4	2.2	0.5	0.5	2.2	3.0	1.8	2.7	0.0	0.1	0.0	0.0	0.0	-1.0	
1		4.9	5.4	4.6	4.2	4.7	4.5	4.5	2.9	4.5	3.6	5.0	2.4	2.2	0.5	0.5	2.2	3.0	1.8	2.7	0.0	0.1	0.0	0.0	0.0	-1.0	
0	3.8	6.1	5.2	4.7	6.6	4.8	4.3	4.6	3.5	4.6	4.1	3.6	1.1	1.4	0.5	0.5	1.8	2.6	0.3	2.3	0.0	0.0	0.4	0.0	-2.1	-1.8	-3.3
-1		6.3	4.5	5.3	4.6	3.6	3.8	4.1	2.0	4.3	2.8	2.5	0.1	2.1	2.1	2.1	0.3	2.2	0.4	1.8	-0.1	-1.0	0.0	-0.1	-2.5	-2.3	
-2		5.5	5.9	4.6	4.8	5.6	4.8	4.3	3.6	4.1	0.7	2.2	-0.1	2.2	2.0	2.0	1.9	3.4	1.2	1.7	0.8	0.0	0.2	0.0	-1.9	-2.3	
-3		2.6	5.7	4.6	5.0	5.5	4.1	4.0	3.7	2.5	2.1	2.0	0.6	0.1	2.9	2.9	1.5	1.9	-0.8	1.8	-4.1	0.4	-0.8	-0.7	-0.9	-2.0	
-4		6.7	5.9	6.2	4.5	5.4	4.5	4.4	2.4	2.1	0.3	4.0	1.0	2.3	1.7	1.7	1.3	0.7	-1.9	1.2	-2.2	-0.4	-0.4	0.6	-1.3	-3.8	
-5		4.7	5.1	3.7	4.9	5.0	3.5	5.5	3.3	4.1	2.6	2.6	2.0	3.4	0.9	0.9	0.1	2.0	0.7	1.7	-0.7	-0.3	-2.3	-1.7	-4.3	-4.2	
-6			4.6	5.4	4.0	6.4	5.5	4.1	4.2	3.7	1.5	1.7	0.6	2.1	1.0	1.0	2.1	0.7	-0.3	0.3	0.8	-1.4	-2.7	-2.4	-0.4	7	
-7				4.4	6.7	5.8	5.0	5.3	2.9	1.7	1.9	3.0	0.2	1.9	-0.1	-0.1	-0.1	0.6	0.3	-0.2	-0.8	-0.4	-3.6	-1.3			
-8				2.7	4.3	4.4	3.1	4.4	0.2	1.8	1.3	2.8	0.2	2.7	-0.1	-0.1	1.1	0.5	-1.1	0.0	-1.4	-2.4	-1.5	-1.4			
-9					2.6	4.6	4.6	4.0	3.5	3.3	2.2	1.1	0.3	2.3	0.1	0.1	1.9	0.7	1.7	0.5	-0.4	-0.4	-0.2				
-10						4.9	4.2	3.8	4.1	3.2	1.0	2.3	0.5	1.9	1.5	1.5	-0.8	0.1	1.3	0.4	-2.4	-0.3					
-11								2.6	-0.3	0.5	0.2	-0.7	-0.8	2.2	0.5	0.5	-0.1	-0.7	0.0	0.2							$ \top $
-12									3.5	2.3	1.1	1.9	-1.9	1.5	-0.1	-0.1	1.4	-0.5	-0.5								$\neg$
-13														1.6													$\neg$
	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13



#### Y Axis Error Map (um)

13														0.8													
12									0.7	1.8	2.1	0.8	0.6	0.0	2.1	2.1	0.1	-0.3	1.7								
11								2.2	1.8	2.3	1.0	0.2	0.6	0.6	0.1	0.1	0.4	0.1	0.7	0.9							
10						0.3	1.0	2.4	3.0	2.3	0.6	2.1	2.0	2.0	0.9	0.9	2.6	1.5	1.9	0.7	2.6	1.8					
9					1.8	1.7	0.6	2.1	2.8	0.4	0.3	2.1	0.6	1.5	0.2	0.2	2.3	1.8	0.6	0.3	2.3	0.7	2.2				
8				2.2	2.0	2.2	0.2	1.8	2.7	1.2	0.3	1.8	0.4	0.5	0.0	0.0	1.8	0.9	0.3	0.2	2.3	-0.3	-0.2	-1.2			
7				2.1	2.0	1.8	0.1	1.9	2.1	1.9	0.6	0.3	0.3	0.5	1.1	1.1	2.3	2.2	0.8	0.5	3.2	0.0	1.9	-0.1			
6		7	2.6	0.9	2.3	1.7	0.6	2.2	1.7	1.3	0.0	1.6	0.2	-0.8	1.7	1.7	2.7	1.5	2.1	1.3	1.1	-0.2	0.6	0.3	1.9		
5		2.1	1.0	0.3	1.0	1.0	1.1	1.5	1.3	2.1	-0.4	0.4	0.4	0.4	2.3	2.3	1.3	0.1	0.3	1.5	2.0	-0.4	1.7	1.5	0.9	0.0	
4		1.8	3.0	1.5	1.2	2.1	2.1	1.0	1.5	1.4	0.2	0.4	0.4	0.9	2.6	2.6	2.3	2.9	0.4	0.0	3.4	0.1	1.4	1.3	1.3	0.4	
3		2.8	3.8	2.4	2.0	2.1	3.1	1.1	1.9	2.6	0.5	0.3	0.3	0.9	1.2	1.2	1.4	1.8	0.9	1.1	1.8	-0.1	1.8	1.4	0.9	1.0	
2		3.6	3.9	2.4	2.4	1.1	2.0	2.7	2.1	2.2	2.1	2.0	0.7	0.0	3.4	3.4	1.4	1.5	1.8	0.9	1.9	-0.2	1.8	1.9	2.0	1.3	
1		3.6	3.9	2.4	2.4	1.1	2.0	2.7	2.1	2.2	2.1	2.0	0.7	0.0	3.4	3.4	1.4	1.5	1.8	0.9	1.9	-0.2	1.8	1.9	2.0	1.3	
0	7.0	2.3	4.5	2.5	1.4	1.5	1.9	2.7	2.0	2.0	2.4	4.3	1.0	1.1	3.4	3.4	1.6	0.8	0.8	2.2	1.0	-0.4	2.0	2.2	1.9	0.6	3.4
-1		3.1	3.7	2.6	2.7	0.4	1.2	1.0	2.1	0.5	1.9	2.4	1.1	2.1	2.2	2.2	0.5	1.4	-0.1	1.4	3.0	-0.9	1.1	0.8	2.3	1.3	
-2		2.6	6.4	2.5	0.9	2.6	0.7	2.0	2.2	0.8	1.9	2.6	2.3	2.2	2.4	2.4	1.3	1.9	1.3	1.0	2.3	-0.1	1.4	2.6	2.6	1.8	
-3		3.8	4.3	2.9	2.3	2.4	2.0	2.4	1.5	3.2	3.0	3.2	3.0	3.3	3.4	3.4	2.4	2.3	1.3	1.8	3.1	1.4	2.1	2.7	3.2	2.4	
-4		3.3	3.4	3.7	1.9	2.4	1.4	1.1	1.4	2.1	1.1	1.8	2.3	1.4	2.7	2.7	2.0	1.4	2.2	2.4	0.6	0.2	1.6	2.6	0.9	2.2	
-5		1.0	4.1	1.0	0.8	0.8	0.3	0.9	1.3	1.9	2.0	2.5	2.8	1.6	1.3	1.3	1.4	1.6	2.4	3.5	1.9	0.4	3.7	2.4	3.2	2.0	
-6			1.9	2.7	2.4	1.1	1.1	2.3	2.2	1.9	2.3	3.0	1.6	2.8	2.5	2.5	1.9	0.7	3.0	2.6	3.5	0.9	2.8	3.9	2.9	7	
-7				3.7	2.4	2.7	2.3	1.5	2.8	2.3	2.2	2.3	3.6	2.3	2.1	2.1	0.4	0.1	3.7	3.0	1.2	1.0	2.2	3.6			
-8				2.5	2.2	1.7	2.3	2.4	1.3	2.5	0.9	2.5	0.1	2.1	0.9	0.9	1.4	1.8	1.0	0.4	1.3	1.4	1.9	2.7			$\Box$
-9					2.5	2.2	2.2	3.7	0.9	2.4	2.9	2.4	1.3	2.5	3.5	3.5	2.5	2.0	2.7	2.3	4.6	1.4	4.8				
-10						2.6	0.4	2.8	2.3	1.5	1.9	2.6	2.9	2.5	3.4	3.4	3.7	1.1	2.7	3.6	3.1	0.0					
-11								2.0	3.4	1.7	0.8	3.5	2.2	2.4	2.6	2.6	2.1	2.1	2.6	2.4						$\dashv$	$\neg$
-12									3.6	2.8	2.4	3.8	2.1	1.1	3.8	3.8	2.2	2.0	2.2							$\dashv$	$\neg$
-13														1.5													$\neg$
١	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13



#### X, Y Error Map (um)

3	4.7, 0.0	3.3, 1.1	3.1, -0.7	1.0, 0.2	3.5, 1.9	1.9, 3.7	0.5, 3.5
2	5.3, -2.1	2.5, -1.0	1.3, -0.3	-0.8, 0.6	2.3, 2.2	1.2, 3.7	0.6, 3.7
1	2.5, -0.9	2.1, 0.2	1.1, 0.8	-1.5, -1.1	2.6, 0.4	1.7, 2.4	1.1, 3.3
0	4.1, -1.3	1.1, 0.0	0.4, 0.8	0.1, 1.3	2.9, 0.5	1.8, 2.4	1.6, 3.6
-1	2.2, -2.9	2.1, -4.2	1.1, -0.4	-0.7, 0.2	2.2, -0.8	0.8, 1.1	0.8, 2.1
-2	3.6, -3.5	1.9, -1.2	0.7, -1.1	-2.1, 0.0	1.7, -1.3	1.2, 0.6	0.6, 1.9
-3	3.5, -3.7	2.1, -2.2	1.0, -1.2	-0.1, -0.6	0.0, -1.2	0.0, 0.4	0.1, 1.7
	-3	-2	-1	0	1	2	3



#### X, Y Error Map (um)

3	3.2, 0.2	2.3, -0.3	2.2, 0.0	1.0, 0.7	1.2, 0.9	-0.1, 2.0	-1.2, 1.7
2	2.3, 0.0	1.3, -0.6	1.1, 0.0	0.0, 0.3	0.8, 0.3	-0.8, 1.5	-1.9, 0.9
1	2.7, -0.8	1.7, -1.4	1.4, -0.2	0.2, 0.0	1.0, 0.2	0.0, 1.3	-1.7, 0.9
0	2.5, -0.7	1.4, -0.9	1.4, -0.1	0.0, 0.1	1.0, 0.8	0.0, 2.0	-1.9, 1.1
-1	1.9, -0.9	0.8, -1.2	1.2, -0.3	0.1, 0.0	0.9, 0.0	-0.2, 1.6	-2.1, 0.2
-2	1.3, -1.1	0.1, -1.5	0.0, -0.7	-0.4, -0.5	0.0, 0.0	-0.8, 1.1	-2.4, 0.2
-3	1.4, -1.3	0.1, -2.2	0.2, -1.0	-0.4, -0.2	0.0, 0.0	-1.1, 0.4	-2.4, 0.0
	-3	-2	-1	0	1	2	3