

Taiwan Semiconductor Co., Ltd.

Product/ Process Change Notification

1. PCN No.:	<i>QPCN08007</i>	
2. Subject:	<i>TS8P, TS10P series die size change</i>	
3. To:	<i>Sales</i>	
4. Issued by:	Vincent	
5. Issue date:	June 13,2008	
6. Proposed first ship date for change:	July 13,2008	
7. Affected Product Identification		
<i>TS8P01G,TS8P02G,TS8P03G,TS8P04G,TS8P05G,TS8P06G,TS8P07G TS10P01G,TS10P02G, TS10P03G,,TS10P04G, TS10P05G,,TS10P06G,TS10P07G,</i>		
8. Change Description : (OLD Vs. NEW Comparison)		
Old:	New:	
1. TS8P0xG series die size - 132mil 2. TS10P0xG series die size - 132mil	1. TS8P0xG series die size - 114mil 2. TS10P0xG series die size - 120mil	
9. Reason for Change:		
The wafer electrical characteristic has been improved. The new die size has the same specification and performance as data sheet		
10. Anticipated Impact: (form, fit, function, quality or reliability)		
<i>A. There is no effect on external dimension. B. Electrical performance remain the same as before. C. There is no effect with product's Hi-rel performance.</i>		
11. Qualification plan/result:		
<i>Refer to the Attachment-1, 2 below</i>		
12. Sample availability Date:	<i>July 13,2008</i>	
13. Tentative implementation date:	<i>July 13,2008</i>	
14. Remarks		
15. Customer feedback required latest: (should we receive no feedback, the change will be deemed as accepted!)	July 13,2008	
16. Approved by:	L.C.Kao	



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Customer Approval Form:

(Please tick the field what is valid for you!)

<input type="checkbox"/> We agree with this proposed change and its schedule.			
<input type="checkbox"/> We have objections			
<input type="checkbox"/> We need more information:			
<input type="checkbox"/> We need sample:			
Company:			
Name:			
Address:			
Signature:		Date:	

(QWS58283)

Attachment 1 -PCN#: YPCN08007

PCN Type: *TS8P, TS10P series die size change*

Data Sheet Change: None

Detail Of Change:

This PCN is to advise our(TSC) customer that TSC will change GBJ8A series die size. We will use 114mil die instead of 132 mil die. Others will remain exactly the same as before.

Qualification Test Result:

To verify the qualification performance, we had chosen TS8P05G and done some hi-rel tests.

The qualification data is given in the following.

1.Parameter verification(TS8P05G)

Original product

Test Item	SPEC LSL	SPEC USL	MIN	MAX	AVERAGE	SIGMA	CPK
VR(V)	600	-	857	1252	1054.5	56.5	2.68
VF(V)	-	1.1	0.936	0.979	0.945	0.022	2.31
IR(uA)	-	5.0	0.000	0.340	0.025	0.049	34.11

New product

Test Item	SPEC LSL	SPEC USL	MIN	MAX	AVERAGE	SIGMA	CPK
VR(V)	600	-	839	1265	1061.98	55.022	2.80
VF(V)	-	1.1	0.965	1.041	0.9852	0.0154	2.48
IR(uA)	-	5.0	0.000	0.320	0.0205	0.0313	53.01

2. TS8P05G FS capability Test Result (Spec 200A)

IFSM(A)	200	210	220	230	240	250	260	270	280	290
Original	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
New	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
IFSM(A)	300	310	320	330	340	350	360	370	380	390
Original	0/10	1/10	2/9	3/7	4/4	-	-	-	-	-
New	2/10	3/8	2/5	3/3	-	-	-	-	-	-

3.Qualification data(TS8P05G)

Original product qualification performance

Test Description	Test Condition	# Lot	# Tested	# Failed	Result
External view	Per AEC-Q101	1	ALL	0	Accept
HTRB	JESD22-A108	1	77	0	Accept
H3TRB	JESD22-A101	1	77	0	Accept
RSH	JESD22-B106	1	30	0	Accept
TC	JESD22-A104	1	77	0	Accept
AC	JESD22-A102	1	77	0	Accept
SD	JESD22-B102D	1	10	0	Accept
I.O.L	MIL-STD-750 Method 1073	1	77	0	Accept
DPA	Per AEC-Q101	1	2	0	Accept

New product qualification performance

Test Description	Test Condition	# Lot	# Tested	# Failed	Result
External view	Per AEC-Q101	1	ALL	0	Accept
HTRB	JESD22-A108	1	77	0	Accept
H3TRB	JESD22-A101	1	77	0	Accept
RSH	JESD22-B106	1	30	0	Accept
TC	JESD22-A104	1	77	0	Accept
AC	JESD22-A102	1	77	0	Accept
SD	JESD22-B102D	1	10	0	Accept
I.O.L	MIL-STD-750 Method 1073	1	77	0	Accept
DPA	Per AEC-Q101	1	2	0	Accept

Related Number

TS8P01G

TS8P02G

TS8P03G

TS8P04G

TS8P05G

TS8P06G

TS8P07G

Attachment2 -PCN#: YPCN08007

PCN Type: *TS8P, TS10P series die size change*

Data Sheet Change: None

Detail Of Change:

This PCN is to advise our(TSC) customer that TSC will change GBJ10A series die size. We will use 120mil die instead of 132 mil die. Others will remain exactly the same as before.

Qualification Test Result:

To verify the qualification performance,we had choosen TS10P06G and done some hi-rel tests.

And the qualification data is given in the following.

1.Parameter verification(TS10P06G)

Original product

Test Item	SPEC LSL	SPEC USL	MIN	MAX	AVERAGE	SIGMA	CPK
VR(V)	800	-	957	1322	1074.481	36.841	2.48
VF(V)	-	1.1	0.936	0.979	0.955	0.008	5.80
IR(uA)	-	5.0	0	0.14	0.025	0.019	89.12

New product

Test Item	SPEC LSL	SPEC USL	MIN	MAX	AVERAGE	SIGMA	CPK
VR(V)	800	-	839	1265	1061.98	34.022	2.57
VF(V)	-	1.1	0.965	1.041	0.9852	0.0154	2.48
IR(uA)	-	5.0	0.000	0.320	0.0505	0.0313	52.70

2. TS10P06G FS capability Test Result (Spec 200A)

IFSM(A)	200	210	220	230	240	250	260	270	280	290
Original	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
New	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10	0/10
IFSM(A)	300	310	320	330	340	350	360	370	380	390
Original	0/10	0/10	0/10	0/10	1/10	2/9	4/7	3/3	-	-
New	0/10	0/10	0/10	1/10	2/9	3/7	3/4	1/1	-	-

3.Qualification data (TS10P06G)

Original product qualification performance

Test Discription	Test Condition	# Lot	# Tested	# Failed	Result
External view	Per AEC-Q101	1	ALL	0	Accept
HTRB	JESD22-A108	1	77	0	Accept
H3TRB	JESD22-A101	1	77	0	Accept
RSH	JESD22-B106	1	30	0	Accept
TC	JESD22-A104	1	77	0	Accept
AC	JESD22-A102	1	77	0	Accept
SD	JESD22-B102	1	10	0	Accept

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I.O.L	MIL-STD-750 Method 1073	1	77	0	Accept
DPA	Per AEC-Q101	1	2	0	Accept

New product qualification performance

Test Discription	Test Condition	# Lot	# Tested	# Failed	Result
External view	Per AEC-Q101	1	ALL	0	Accept
HTRB	JESD22-A108	1	77	0	Accept
H3TRB	JESD22-A101	1	77	0	Accept
RSH	JESD22-B106	1	30	0	Accept
TC	JESD22-A104	1	77	0	Accept
AC	JESD22-A102	1	77	0	Accept
SD	JESD22-B102	1	10	0	Accept
I.O.L	MIL-STD-750 Method 1073	1	77	0	Accept
DPA	Per AEC-Q101	1	2	0	Accept

Related Number

TS10P01G
TS10P02G
TS10P03G
TS10P04G
TS10P05G
TS10P06G
TS10P07G