

Taiwan Semiconductor Co., Ltd.

Product/ Process Change Notification

1. PCN No.:	QPCN11023B
2. Subject:	Copper Bond Wire and Halogen-free mold compound Implementation
3. To:	Customers
4. Issued by:	PMD PM
5. Issue date:	August. 30,2011
6. Proposed first ship date for change:	December, 2011
7. Affected Product Identification:	
MOSFET Product Family	
➤ SOP-8 Package	
➤ TSSOP-8 Package	
8. Change Description : (OLD vs. NEW Comparison)	
Old:	New:
➤ Gold bond-wire	➤ Copper bond-wire
➤ Standard mold compound	➤ Halogen-free mold compound
9. Reason for Change:	
➤ Enhancement to long-term product reliability. (Copper offers lower Electrical Resistivity, high current capability than Gold wire)	
➤ Use Halogen Free Mold Compound for better environment protects consideration.	
10. Anticipated Impact: (form, fit, function, quality or reliability)	
There is no change to the product form, fit, function and quality.	
11. Qualification Plan / Result:	
Refer to the appendix A and B	
12. Sample Availability Date:	
Please contact your regional Taiwan Semiconductor Sales office for sample availability.	
13. Tentative Implementation Date:	
Shipments will begin in DEC. 2011.	
14. Remarks:	
➤ There will be no change to part numbering. Products converted to Copper wire will have date code 1Z1 or later.	
➤ Ordering packing code will be SOP-8 (RLG), TSSOP-8 (RVG)	
15. Customer feedback required latest: (should we receive no feedback, the change will be deemed as accepted!)	
This PCN is considered approved, without further notification, unless we receive specific customer concerns before NOV end, 2011 as specified by contract.	
Issued by	Approved by

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:	

Appendix A

QPCN11023B Parts List

SOP-8 Package	SOP-8 Package	TSSOP-8 Package
TSM9426DCS RL	TSM4436CS RL	TSM6970DCA RV
TSM7401CS RL	TSM4946DCS RL	TSM6968DCA RV
TSM9926DCS RL	TSM1N45DCS RL	TSM6968SDA RV
TSM9428CS RL	TSM9434CS RL	TSM6866DCA RV
TSM9428DCS RL	TSM9434DCS RL	TSM6866SDCA RV
TSM4426CS RL	TSM9433CS RL	TSM6981DCA RV
TSM4410CS RL	TSM9933DCS RL	
TSM4410DCS RL	TSM4433CS RL	
TSM4872CS RL	TSM4433DCS RL	
TSM4944DCS RL	TSM4425CS RL	
TSM4886CS RL	TSM4835CS RL	
TSM4392CS RL	TSM4435CS RL	
TSM4418CS RL	TSM4925DCS RL	
TSM4416CS RL	TSM4415CS RL	
TSM4416DCS RL	TSM4431CS RL	
TSM4414CS RL	TSM9435CS RL	
TSM414K34CS RL	TSM4953DCS RL	
TSM4936DCS RL	TSM9409CS RL	

Appendix B

Copper Wire Qualification

Package: SOP-8, TSSOP-8

Qualification Result:

No.	Items	Test Condition	S.S	Result (S.S / Reject)
1	Pre-condition	24hrs 125C backing 168hrs 85/85 x 3@ 260°C	All	77 / 0
2	TCT (Temperature Cycle Test)	Cold : -65°C (+0 / -10)°C Hot: 150°C (+15/-0)°C 1000 cycles	77	77 / 0
3	PCT (Pressure	Temperature: 121°C Humidity: 100%RH Duration:1000hrs	77	77 / 0
4	THT (Temperature Humidity Test)	Temperature: 85°C Humidity: 85%RH Duration:1000hrs	77	77 / 0
5	HTSL (High Temperature Storage Life)	Temperature: 150°C Duration:1000hrs	77	77 / 0
6	Wire Pull test	>8g	40 wires	40 / 0
7	Ball Share test	>5.5g	40 wires	40 / 0