



Supplement
CUSTOMER PRODUCT-/ PROCESS CHANGE NOTIFICATION

Reactions to this notifications are to be adressed to your local Philips sales representative or quality contact.

CPCN Number: 200305025S3	CPCN Issue Date: Jun 18 2004
Author: Maas Geesteranus, Michiel in Nijmegen	Issued by: Maas Geesteranus, Michiel in Nijmegen
Previous Notifications: May 28, 2003: 200305025 Advance Nov 05, 2003: 200305025F Final Dec 16, 2003: 200305025S Supplement	

IC Application Area: In Multiple IC Areas

Change Affects a Whole Prod/Proc/Pkg Family?

No

Product Types/12ncs Affected:

12NC	12NC (New)	Type Number	Type Number (New)	Philips Package Code	Package Name
999999999999		FOR THE TYPelist	SEE THE WEBPAGE A	INDICATED BELOW	UNDER REMARKS

Change Category: ASSEMBLY/SITE/PACKAGE/MATERIAL

Change Description:

Lead (Pb) containing leadfinish material will be replaced by a lead(Pb)-free leadfinish material. The 1st, 2nd and 3rd phases were communicated via the Final and 1st & 2nd Supplement CPCN's of Nov 5th, Dec 16th, 2003 and Feb 20th, 2004 resp.. Through this 3rd Supplement to the Final CPCN the conversion of the fourth phase products to Pb-free is communicated:

IN NiPdAu :

- SO8/14/16/20/24/28/32 assembled in Philips Semiconductors Thailand which were not notified in previous phases.
- TSSOP20 assembled in Philips Semiconductors Calamba.
- SSOP48/56 assembled in Philips Semiconductors Thailand.
- SSOP14/16/20 assembled in Philips Semiconductors Thailand.
- SSOP20 assembled in Philips Semiconductors Calamba.

IN MATTE Sn :

- SQFP208 packages assembled in Philips Semiconductors Calamba.
- PLCC and SOJ packages assembled in ASE Kaohsiung and Amkor Philippines.
- HVQFN packages assembled in Amkor Korea.
- H(S)QFP assembled in Amkor Korea.
- TSSOP8/10/14/16/20/24/28/30 assembled in Amkor Philippines.

Reason for Change:

Increased environmental friendliness, required by world-wide programs and legislation (RoHS) to remove lead (Pb) from semiconductor package terminals.

Remarks:

The Final CPCN is split-up in 6 phases (1 Final CPCN and 5 supplements). This 3rd Supplement is intended as the 4th "Final CPCN" through which the 4th phase introduction is communicated.

PROPERTIES OF OLD VS CHANGED PRODUCT:

The form/fit/function properties of the products are not influenced by the change.

As the leadtin(SnPb)plating is replaced by matte tin(Sn)plating or NiPdAu preplating, the visual appearance of the leads may change.

The mounting of products on PCB are not influenced by this change. Pb-free and Pb-containing product are compatible for SnPb and Pb-free boardmounting processes. For both processes the MSL precautions, as indicated on packing label, must be respected.

With Pb-free introduction all mentioned products comply to RoHS.

DISPOSITION OF OLD PRODUCTS:

Pb-free products delivery starts once Pb-containing products are depleted.

IDENTIFICATION OF CHANGED PRODUCT:

The Pb-free products can be identified:

1. By a Pb-free logo on the label, e.g. on reel and inner packing box.



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- 2. If space permits : By marking the symbol "G" or "E" on the product.
- 3. By backward traceability through date codes.

12NC CHANGES:

Due to higher temperatures for leadfree boardsoldering certain types will change to drypack, old and new 12NC's and new MSL are indicated in the type list.

ESTIMATED DATE FOR DELIVERY OF CHANGED PRODUCT: AUGUST 2004.

The ZIP file attached at "Attachement" below contains following information:

- 1. Updated Conversion roadmap (incl. the plan how to communicate via Final CPCN and CPCN supplements)
- 2. Qualification results fourth phase (2 reports)
- 3. Product type list fourth phase

All above information is also available on the leadfree webpage:
http://www.semiconductors.com/green_roadmap/cpcn/.

Supplemented As Follows:

See remarks above.

Attachment: Files attached as described above

Approved by:	Name:	Job Title:	Date:
	Eef Bagerman	Sr. Director ATO Innovation	Jun 18 2004
	Jan van de Water	Pb free Program Manager	Jun 18 2004
	Michiel Maas Geesteranus	Assembly Technical Change Coordinator ATO I	Jun 18 2004

An approved electronic or hardcopy version of this Change Notification has been filed by the publishing Business Unit or Business Line/Orgnaization mentioned at the top of this document.



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