



**Supplement**  
**CUSTOMER PRODUCT-/ PROCESS CHANGE NOTIFICATION**

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

|   |   |
|---|---|
| <b>CPCN Number:</b> 200305025S1   | <b>CPCN Issue Date:</b> Dec 16 2003                     |
| <b>Author:</b> Maas Geesteranus, Michiel in Nijmegen  | <b>Issued by:</b> Maas Geesteranus, Michiel in Nijmegen |
| <b>Previous Notifications:</b><br>May 28, 2003: 200305025 Advance<br>Nov 05, 2003: 200305025F Final |   |

**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 first phase introduction started in December 2003 (communicated via the Final CPCN on November 5th, 2003).

Through this Supplement CPCN the conversion of the second phase products to Pb-free is communicated: LQFP, HLQFP, TQFP, HTQFP, QFP and SQFP packages in matte Sn & post bake solution.

**Reason for Change:**

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

**Remarks:**

## Supplemented As Follows:

The Final CPCN will be split-up in 6 phases (1 Final CPCN and 5 supplements), with periods of 6 weeks between each announcement. This first Supplement is intended as the second "Final CPCN" through which the second 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.
2. If space permits : By marking the symbol "G", "E" or "N" on the product.
3. By backward traceability through date codes.

Estimated Date for Delivery of Changed Product: February 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)



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2. Qualification results second phase  
3. Product type list second phase  
4. Updated Qualification plan next phases.  
All above information is also available on the leadfree webpage:  
[http://www.semiconductors.com/green\\_roadmap/](http://www.semiconductors.com/green_roadmap/).

**Attachment:** See remark above.

| <b>Approved by:</b> | <b>Name:</b>             | <b>Job Title:</b>                           | <b>Date:</b> |
|---------------------|--------------------------|---|--------------|
|                     | Eef Bagerman             | Director ATO Innovation                     | Dec 16 2003  |
|                     | Jan van de Water         | Pb-free Program Manager                     | Dec 16 2003  |
|                     | Michiel Maas Geesteranus | Assembly Technical Change Coordinator ATO I | Dec 16 2003  |

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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