

**Final Product Change Notification**

201910004F01

**Issue Date:** 01-Nov-2019  
**Effective Date:** 01-May-2020

Here's your personalized quality information concerning products Digi-Key purchased from Nexperia. For detailed information we invite you to view this notification online



**Management Summary**

- Introduction of Cu-wire bonding TSSOP8 (SOT505-2) package in ASEN for automotive products
- Replace Au wire BOM to Cu wire BOM

**Change Category**

<input type="checkbox"/> Wafer Fab Process	<input checked="" type="checkbox"/> Assembly Process	<input type="checkbox"/> Product Marking	<input type="checkbox"/> Test Location	<input type="checkbox"/> Design
<input type="checkbox"/> Wafer Fab Materials	<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Process	<input type="checkbox"/> Errata
<input type="checkbox"/> Wafer Fab Location	<input type="checkbox"/> Assembly Location	<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Equipment	<input type="checkbox"/> Electrical spec./Test coverage

**Introduction of Cu-wire bonding TSSOP8 (SOT505-2) package in ASEN**

**Details of this Change**

Introduction of Cu-wire in TSSOP8 (SOT505-2) package in ASEN (ASE Group Assembly & Test Plant Suzhou China) for automotive products

- Wire and BOM change to facilitate Au-wire to Cu-wire conversion
- Front end (diffusion fab) and location will not change
- Qualified compliant to AEC-Q100 (including AEC-Q006)

**Why do we Implement this Change**

- Next phase in Cu wire expansion after maturation in commodity Logic products since 2012
- Superior electrical resistivity and better thermal conductivity
- Improved wire-sweep resistance based on mechanical strength
- A stronger interconnect, which gives improved wire pull and ball shear performance
- Slower intermetallic growth, due to the lower diffusion rate of copper to aluminum, which gives a more reliable interconnect at high temperature
- Better electrical performance due to the higher conductivity of copper wire in comparison to gold wire
- Aligning with world technology trends, Nexperia starts to introduce copper wire for plastic SMD packages. Copper wire shows enhanced mechanical properties
- Increased environmental friendliness (eco-friendly)

**Identification of Affected Products**

The changed products can be identified by backward traceability of the product marking date code

## Product Availability

### Sample Information

Samples are available upon request

Samples are available upon request from the Logic sample store Nijmegen The Netherlands

### Production

Planned first shipment 01-May-2020

### Impact

- No change in form, fit, function, quality or reliability anticipated

- No change in die (same electrical distribution)

- No change in data sheet and test limits

### Data Sheet Revision

No impact to existing datasheet

### Disposition of Old Products

Existing inventory will be shipped until depleted

## Related Notifications

### Notification Issue Date Effective Date Title

201905006F0128-	Jun-2019	26-Sep-2019	Introduction of Cu-wire bonding TSSOP8 (SOT505-2) package in ASEN (Phase 9)
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## Timing and Logistics

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 01-Dec-2019. Lack of acknowledgement of the PCN constitutes acceptance of the change.

## Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact Nexperia "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local Nexperia Sales Support team.

At Nexperia B.V. we are constantly striving to improve our product and processes to ensure they reach the highest possible Quality Standards.

## About Nexperia B.V.

We at Nexperia are the efficiency semiconductor company. We deliver over 90 billion products a year and as such service thousands of global customers, both directly and through our extensive network of channel partners. We are at the heart of billions of electronic devices in the Automotive, Mobile, Industrial, Consumer, Computing, and Communication Infrastructure segments.

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### Affected Part Number Affected 12NC

74LVC1G74DP-Q100H	935299294125
74HC2G08DP-Q100H	935300847125
74LVC3G17DP-Q100H	935304347125
74LVC1G123DP-Q100H	935302107125
74LVC2G08DP-Q100H	935301555125