

Final Product Change Notification

201805001F01

Issue Date: 31-Dec-2018
Effective Date: 30-Jun-2019

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 For detailed information we invite you to view this notification online



Management Summary

- Introduce ASEN as additional source to secure capacity expansion DHVQFN
- Replace Au (gold) wire with Cu (copper) wire in bonding process in ATBK

Change Category

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

Introduce ASEN as additional source for assembly automotive DHVQFN packages

Details of this Change

Release Automotive DHVQFN 14-16-20-24 packages with Cu wire in ASEN (ASE Group Assembly & Test Plant Suzhou China) and convert ATBK (NXP Semiconductors Assembly & Test Plant Bangkok Thailand) to Cu wire

- Replace Au (gold) wire with Cu (copper) wire in bonding process in ATBK
- Introduce RT-PPF leadframe to meet post stress AEC-Q006 delamination criteria

Qualification in accordance to the Automotive Electronics Council:

- AEC-Q100-rev. H Stress Test Qualification for Integrated Circuits
- AEC-Q006-rev. A Qualification requirements for Cu wire interconnections

Why do we Implement this Change

- Create dual source capability
- Continued alignment with world technology trends on state of the art production tools
- Copper wire shows enhanced mechanical properties
- Increased environmental friendliness (eco-friendly)

Identification of Affected Products

- The changed products can be identified by date code
- Assembly location can be identified on top side marking and reel and box labels

Product Availability

Sample Information

Samples are available upon request

Production

Planned first shipment 30-Jun-2019

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
- No change in ordering code 12NC's

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

201706004F0114-Jul-2017	12-Oct-2017	Release of Cu-wire bonding for the DHVQFN packages in ASEN and ATBK
201708004F0101-Sep-2017	01-Dec-2017	Release of Cu-wire bonding for the DHVQFN packages in ASEN and ATBK (phase 8)

Timing and Logistics

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 30-Jan-2019. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Remarks

Assembly location indicator suffix on reel and box label:

"X"= ASEN (ASE Group Assembly & Test Plant Suzhou China)

"n"= ATBK (NXP Semiconductors Assembly & Test Plant Bangkok Thailand)

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.

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Jonkerbosplein 52 6534 AB Nijmegen, The Netherlands

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Affected Part Numbers

74AHC595BQ-Q100,11
74AHCU04BQ-Q100X
74LVCH244ABQ-Q100X
74HCT595BQ-Q100,11
74AHCT240BQ-Q100X
74HC4017BQ-Q100X
NPIC6C596ABQ-Q100X
74HC595BQ-Q100,115
74HCT4851BQ-Q100,1
74HCT02BQ-Q100,115
74HC238BQ-Q100X
74HCT238BQ-Q100X
74HCT4066BQ-Q100,1
74LVC8T245BQ-Q100J
74LVCH8T245BQ-Q10J
74AHCT245BQ-Q100X
74AHCT244BQ-Q100,1
74LVC823ABQ-Q100J
74HCT4060BQ-Q100,1
74AVC8T245BQ-Q100J
74AVC4T245BQ-Q100X
74HC4067BQ-Q100J
74HC4060BQ-Q100,11
74HC4040BQ-Q100X
74AVCH4T245BQ-Q10X
74HC05BQ-Q100,115
74HCT4852BQ-Q100,1
74AHC594BQ-Q100,11
74HC4852BQ-Q100,11
74HCU04BQ-Q100X
74LVC4066BQ-Q100X
NPIC6C595BQ-Q100,1
74HCT4067BQ-Q100J
74HCT4052BQ-Q100,1
74HCT4020BQ-Q100X
74AHCT594BQ-Q100,1
74AHCT595BQ-Q100,1
74LVC125ABQ-Q100X
74HC4851BQ-Q100,11
74HC573BQ-Q100,115
74HCT4040BQ-Q100X