
PRODUCT CHANGE NOTICE

**Alternate Bond Wire Material
for Assembly of the Listed
Intersil DFN/QFN Packaged
Products**

**Refer to:
PCN13005**

Date: January 23, 2013

January 23, 2013

To: Our Valued Intersil Customer

Subject: **Alternate Bond Wire Material for Assembly of the Listed Intersil DFN/QFN Packaged Products – Carsem (CAS) Ipoh, Malaysia**

This notice is to inform you that Intersil has qualified copper bond wire as an alternate to the gold bond wire currently used for assembly of the listed DFN/QFN (Dual/Quad Flat No-lead) packaged products at the Carsem (CAS) facility located in Ipoh, Malaysia. The advantages of copper bond wire include improved electrical conductivity of the wire, slower intermetallic growth, reduced wire sweep and equivalent reliability performance. This action will expand current capabilities and capacities to optimize Intersil's ability to meet customer's delivery requirements. As of this notice, all product and package specific qualification activities are complete.

The Carsem (CAS) facility is ISO 9001:2008 and ISO/TS 16949:2009 certified and qualified as a supplier to Intersil for assembly of DFN/QFN packaged products with both copper and gold bond wire material. Products assembled with copper bond wire are classified as moisture sensitivity level three (MSL 3 at 260 °C per J-STD-020). As such, the listed products will be packed, labeled, and shipped as moisture sensitivity level three (MSL 3) upon implementation of the changes outlined in this PCN.

The qualification plan for copper bond wire assembly is designed using JEDEC and other applicable industry standards to confirm there is no impact to form, fit, function, or interchangeability of the product. A summary of the copper bond wire assembly qualification results is included for reference. The remainder of the manufacturing operations (wafer fabrication, package level electrical testing, shipment, etc.) will continue to be processed to previously established conditions and systems.

Products affected by this change that are assembled using either gold or copper bond wire material are identifiable via Intersil's internal traceability system and by the assembly site code (country of assembly) when marked on the devices. The site code for product assembled at CAS with copper bond wire is "X". The site code for product assembled at CAS with gold bond wire is "F".

Intersil will take all necessary actions to conform to agreed upon customer requirements and to ensure the continued high quality and reliability of products being supplied. Customers may expect to receive product assembled using either gold or copper bond wire beginning *ninety* days from the date of this notification or earlier with approval.

If you have concerns with this change notice, Intersil must hear from you promptly. Please contact the nearest Intersil Sales Office or call the Intersil Corporate line at 1-888-468-3774, in the United States, or 1-321-724-7143 outside of the United States.

Regards,



Jon Brewster
Intersil Corporation

PCN13005

CC: J. Touvell D. Decrosta D. Foster D. Singh S. Nadarajah R. Pitts G. Liang P. Bianco

PCN13005 – Products Affected

| | | | |
|------------------|------------------|-------------------|---------------------|
| ISL23345TFRZ | ISL23448WFRZ | ISL80111IRAJZ-T7A | ISL89167FRTAZ |
| ISL23345TFRZ-T7A | ISL23448WFRZ-T7A | ISL80112IRAJZ | ISL89167FRTAZ-T |
| ISL23345TFRZ-TK | ISL23448WFRZ-TK | ISL80112IRAJZ-T | ISL89168FRTAZ |
| ISL23345UFRZ | ISL33001IRT2Z | ISL80112IRAJZ-T7A | ISL89168FRTAZ-T |
| ISL23345UFRZ-T7A | ISL33001IRT2Z-T | ISL80113IRAJZ | ISL89367FRTAZ |
| ISL23345UFRZ-TK | ISL33002IRT2Z | ISL80113IRAJZ-T | ISL89367FRTAZ-T |
| ISL23345WFRZ | ISL33002IRT2Z-T | ISL80113IRAJZ-T7A | ISL97671AIRZ |
| ISL23345WFRZ-T7A | ISL33003IRT2Z | ISL89160FRTAZ | ISL97671AIRZ-T |
| ISL23345WFRZ-TK | ISL33003IRT2Z-T | ISL89160FRTAZ-T | ISL97671AIRZ-TK |
| ISL23348TFRZ | ISL55119IRTZ | ISL89160FRTBZ | ISL97671AIRZ-TR5533 |
| ISL23348TFRZ-T7A | ISL55119IRTZ-TK | ISL89160FRTBZ-T | ISL97671IRZ |
| ISL23348TFRZ-TK | ISL6146AFRZ | ISL89161FRTAZ | ISL97671IRZ-T |
| ISL23348UFRZ | ISL6146AFRZ-T | ISL89161FRTAZ-T | ISL97671IRZ-TK |
| ISL23348UFRZ-T7A | ISL6146AFRZ-T7A | ISL89161FRTBZ | ISL97672AIRZ |
| ISL23348UFRZ-TK | ISL6146AFRZ-TK | ISL89161FRTBZ-T | ISL97672AIRZ-T |
| ISL23348WFRZ | ISL6146BFRZ | ISL89162FRTAZ | ISL97672AIRZ-TK |
| ISL23348WFRZ-T7A | ISL6146BFRZ-T | ISL89162FRTAZ-T | ISL97672BIRZ |
| ISL23348WFRZ-TK | ISL6146BFRZ-T7A | ISL89162FRTBZ | ISL97672BIRZ-T |
| ISL23445TFRZ | ISL6146BFRZ-TK | ISL89162FRTBZ-T | ISL97673IRZ |
| ISL23445TFRZ-T7A | ISL6146CFRZ | ISL89164FRTAZ | ISL97673IRZ-T |
| ISL23445TFRZ-TK | ISL6146CFRZ-T | ISL89164FRTAZ-T | ISL97673IRZ-TK |
| ISL23445UFRZ | ISL6146CFRZ-T7A | ISL89164FRTBZ | ISL97674IRZ |
| ISL23445UFRZ-T7A | ISL6146CFRZ-TK | ISL89164FRTBZ-T | ISL97674IRZ-T |
| ISL23445UFRZ-TK | ISL6146DFRZ | ISL89164FRTCZ | ISL97674IRZ-TK |
| ISL23445WFRZ | ISL6146DFRZ-T | ISL89164FRTCZ-T | ISL97675IRZ |
| ISL23445WFRZ-T7A | ISL6146DFRZ-T7A | ISL89165FRTAZ | ISL97675IRZ-T |
| ISL23445WFRZ-TK | ISL6146DFRZ-TK | ISL89165FRTAZ-T | ISL97675IRZ-TK |
| ISL23448TFRZ | ISL6146EFRZ | ISL89165FRTBZ | ISL97676IRZ |
| ISL23448TFRZ-T7A | ISL6146EFRZ-T | ISL89165FRTBZ-T | ISL97676IRZ-T |
| ISL23448TFRZ-TK | ISL6146EFRZ-T7A | ISL89165FRTCZ | ISL97676IRZ-TK |
| ISL23448UFRZ | ISL6146EFRZ-TK | ISL89165FRTCZ-T | |
| ISL23448UFRZ-T7A | ISL80111IRAJZ | ISL89166FRTAZ | |
| ISL23448UFRZ-TK | ISL80111IRAJZ-T | ISL89166FRTAZ-T | |

PCN13005 –CAS Reliability Qualification Summary

| Device: ISL62883CHRTZ (40L 5x5 TQFN) | | | | | | |
|--|--------------|-----------|---------|---------|-------------|--------|
| Stress / Conditions | Duration | Test lots | | | Control Lot | Result |
| | | Lot #1 | Lot #2 | Lot #3 | | |
| MSL Classification | L3 PBFree | N = 22 | N = 22 | N = 22 | N = 22 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| uHAST 130C / 85% RH | 96 Hrs | N = 26 | N = 26 | N = 26 | N = 78 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| Temp Cycle -65C to +150C | 500 cyc | N = 80 | N = 80 | N = 80 | N = 80 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |

| Device: ISL95870BHRZ (20L 3X4 QFN) | | | | | | |
|--------------------------------------|--------------|-----------|---------|---------|-------------|--------|
| Stress / Conditions | Duration | Test lots | | | Control Lot | Result |
| | | Lot #1 | Lot #2 | Lot #3 | | |
| MSL Classification | L3 PBFree | N = 22 | N = 22 | N = 22 | N = 22 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| uHAST 130C / 85% RH | 96 Hrs | N = 26 | N = 26 | N = 26 | N = 78 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| Temp Cycle -65C to +150C | 500 cyc | N = 80 | N = 80 | N = 80 | N = 80 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |

| Device: ISL80121IR50Z (10L 3X3 DFN) | | | | | | |
|---------------------------------------|--------------|-----------|---------|---------|-------------|--------|
| Stress / Conditions | Duration | Test lots | | | Control Lot | Result |
| | | Lot #1 | Lot #2 | Lot #3 | | |
| MSL Classification | L3 PBFree | N = 22 | N = 22 | N = 22 | N = 22 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| uHAST 130C / 85% RH | 96 Hrs | N = 26 | N = 26 | N = 26 | N = 78 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| Temp Cycle -65C to +150C | 500 cyc | N = 80 | N = 80 | N = 80 | N = 80 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |

| Device: ISL9492ERZ (28L 4X4 DFN) | | | | | | |
|------------------------------------|--------------|-----------|---------|---------|-------------|--------|
| Stress / Conditions | Duration | Test lots | | | Control Lot | Result |
| | | Lot #1 | Lot #2 | Lot #3 | | |
| MSL Classification | L3 PBFree | N = 22 | N = 22 | N = 22 | N = 22 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| uHAST 130C / 85% RH | 96 Hrs | N = 26 | N = 26 | N = 26 | N = 78 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |
| bHAST 130C / 85% RH | 96 Hrs | N = 78 | NA | NA | NA | PASS |
| | | Acc = 0 | | | | |
| Temp Cycle -65C to +150C | 500 cyc | N = 80 | N = 80 | N = 80 | N = 80 | PASS |
| | | Acc = 0 | Acc = 0 | Acc = 0 | Acc = 0 | |