



Final Product/Process Change Notification

Document #: FPCN24796X

Issue Date: 05 Jan 2023

Title of Change:	Gold (Au) to Copper (Cu) Wire Qualification in HANA.		
Proposed First Ship date:	12 Apr 2023 or earlier if approved by customer		
Contact Information:	Contact your local onsemi Sales Office or CheePin.Tay@onsemi.com		
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.		
Additional Reliability Data:	Contact your local onsemi Sales Office or Lalan.Ortega@onsemi.com		
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com		
Marking of Parts/ Traceability of Change:	Affected parts are to be identified by cut-off date-code		
Change Category:	Assembly Change		
Change Sub-Category(s):	Material Change		
Sites Affected:			
onsemi Sites		External Foundry/Subcon Sites	
None		HANA Semiconductor, Thailand	
Description and Purpose:			
<p>The use of copper (Cu) wire in semiconductor devices is no longer a new technology. Copper (Cu) wire has proven to have better electrical & mechanical properties comparing to gold (Au) or aluminum (Al) wire. Nowadays Cu wire is widely used by most of the semiconductor company.</p> <p>Upon FPCN expiration, Hana will be readied to convert these 6 products to Cu wire.</p> <p>This change will not affect the form, fit & function of the products assembled by Hana.</p>			
Part Number	Item	Existing	New
FDME1024N2T FDME1034C2T	Bond Wire	Gold (Au) wire - 1.3 mil	Copper Palladium Gold (CuPdAu) wire - 1.3 mil
	Wire Bonding Method	BSOB (Bond stitch on bump)	Forward Bonding
FDMA6023P2T FDME820N2T FDME905PT FDME910P2T-P	Bond Wire	Gold (Au) wire - 1.5 mil	Copper (Cu) wire - 1.5 mil
	Wire Bonding Method	BSOB (Bond stitch on bump)	Forward Bonding
<p>Note: There is no product marking change as a result of this change.</p>			



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Reliability Data Summary:

QV DEVICE NAME: FDME910PZT-P

RMS: S83186

PACKAGE: UDFN-6

Test	Specification	Condition	Interval	Results
HTGB	JESD22-A108	Tj=150°C, VGS=-8V	1008 hrs	0/252
HTRB	JESD22-A108	Tj=150°C, VDS=-16V	1008 hrs	0/252
HAST + PC	JESD22-A110	Ta=110°C, RH=85%, VDS=-16V	264 hrs	0/252
TC + PC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
uHAST + PC	JESD22-A118	Ta= 130°C, RH= 85%, 18.8pisp	96 hrs	0/252
IOL + PC	MIL-STD-750 (M1037) AEC-Q101	Ta= 25°C, delta Tj=100°C, 2 min	15000 cyc	0/126
RSH	JESD22-B106	Ta= 268°C, 10 sec dwell B106	-	0/90

QV DEVICE NAME: FDME820NZT

RMS: S83183

PACKAGE: UDFN-6

Test	Specification	Condition	Interval	Results
HTGB	JESD22-A108	Tj=150°C, VGS=12V	1008 hrs	0/252
HTRB	JESD22-A108	Tj=150°C, VDS=16V	1008 hrs	0/252
HAST + PC	JESD22-A110	Ta=110°C, RH=85%, VDS=16V	264 hrs	0/252
TC + PC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
uHAST + PC	JESD22-A118	Ta= 130°C, RH= 85%, 18.8pisp	96 hrs	0/252
IOL + PC	MIL-STD-750 (M1037) AEC-Q101	Ta= 25°C, delta Tj=100°C, 2 min	15000 cyc	0/126
RSH	JESD22-B106	Ta= 268°C, 10 sec dwell B106	-	0/90

QV DEVICE NAME: FDME1034CZT

RMS: S83179

PACKAGE: UDFN-6

Test	Specification	Condition	Interval	Results
HTGB	JESD22-A108	Tj=150°C, VGS=-8V	1008 hrs	0/252
HTRB	JESD22-A108	Tj=150°C, VDS=-16V	1008 hrs	0/252
HAST + PC	JESD22-A110	Ta=110°C, RH=85%, VDS=-16V	264 hrs	0/252
TC + PC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
uHAST + PC	JESD22-A118	Ta= 130°C, RH= 85%, 18.8pisp	96 hrs	0/252
IOL + PC	MIL-STD-750 (M1037) AEC-Q101	Ta= 25°C, delta Tj=100°C, 2 min	15000 cyc	0/126
RSH	JESD22-B106	Ta= 268°C, 10 sec dwell B106	-	0/90



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Electrical Characteristics Summary:

Electrical characteristics are not impacted & data will be provided upon request.

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
FDMA6023PZT	FDME820NZT, FDME910PZT-P
FDME1024NZT	FDME1034CZT
FDME1034CZT	FDME1034CZT
FDME820NZT	FDME820NZT
FDME905PT	FDME910PZT-P
FDME910PZT-P	FDME910PZT-P