

PCN Number:	20140829000		PCN Date:	9/02/2014	
Title:	Qualify Au wire as Alternative Wire Base Metal for Selected VQFN Device(s)				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
Proposed 1st Ship Date:	12/02/2014	Estimated Sample Availability:	Date provided at sample request		
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
				<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of Au as an additional bond wire option for devices listed in "Product affected" section below. Devices will remain in current assembly facility and there will be no other piece part changes.					
Reason for Change:					
Manufacturing flexibility.					
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):					
None.					
Changes to product identification resulting from this PCN:					
None.					
Product Affected:					
SN65LVDS822RGZR		SN65LVDS822RGZT			

Qualification Data – Approved August, 2014					
This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.					
Qual Vehicle 1 : SN65LVDS822RGZ (MSL 3-260C)					
Package Construction Details					
Assembly Site:	TI-Clark	Mold Compound:	4208625		
# Pins-Designator, Family:	48-RGZ, VQFN	Mount Compound:	4207768		
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au		
Qualification:	<input type="checkbox"/> Plan	<input checked="" type="checkbox"/> Test Results			
Reliability Test	Conditions	Sample Size/Fail			
Electrical Characterization	Per Datasheet Parameters	Pass			
Ball Bond Shear	76 balls, 3 units min	Pass			
Bond Pad Cratering Check	Per Manufacturing Specifications	Pass			
Bond Pull	76 Wire, 3 units min	Pass			

Reference Qualification Data – Approved September, 2009

This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle 1 : SN65LVCP40RGZ (MSL 3-260C)

Package Construction Details

Assembly Site:	TI-Clark	Mold Compound:	4208625
# Pins-Designator, Family:	48-RGZ, VQFN	Mount Compound:	4207768
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size/Fail
**Autoclave	121C (96 Hrs)	77/0
**Temperature Cycle	-65/150C (500 cycles)	82/0
**High Temp Storage Bake	170C (420 Hrs)	77/0
**Life Test	155C (240 Hrs)	116/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass
Moisture Sensitivity	Level 3-260C	12/0

Notes **- Preconditioning sequence: Level 3-260C.

Qual Vehicle 2 : SH6966ACC0RGCRG4 (MSL 3-260C)

Package Construction Details

Assembly Site:	TI-Clark	Mold Compound:	4208625
# Pins-Designator, Family:	64-RGC, VQFN	Mount Compound:	4207768
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.15 Mil Dia., Au

Qualification: Plan **Test Results**

Reliability Test	Conditions	Sample Size/Fail
**Autoclave	121C (96 Hrs)	77/0
**Thermal Shock	-65/150C (500 cycles)	77/0
**Temperature Cycle	-65/150C (500 cycles)	82/0
**High Temp Storage Bake	170C (420 Hrs)	77/0
**Life Test	125C (1000 Hrs)	141/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0
Solderability	8 Hours Steam Age	22/0
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass
Moisture Sensitivity	Level 3-260C	12/0

Notes **- Preconditioning sequence: Level 3-260C.

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com