12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20220322001.1
Qualification of alternate Cu as an alternate bond wire for select devices
Change Notification / Sample Request

Date: April 19, 2022
To: TOKYO ELECTRON DEVICE (DSTR) PCN

Revision A is to update proposed first ship date.

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If additional data is required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

20220322001.1A
Change Notification / Sample Request
Attachments

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
DP83848IVV/NOPB	null
DP83848IVVX/NOPB	null
DS15BR400TVS/NOPB	null
DS90LV004TVS/NOPB	null
DP83816AVNG/NOPB	null
DS15BR401TVSX/NOPB	null
DS90C124IVSX/NOPB	null
DS90C241IVSX/NOPB	null
DP83816AVNG-EX/NOPB	null
DS90C124IVS/NOPB	null
DS90C241IVS/NOPB	null
DS90C3201VS/NOPB	null
DS90C3202VS/NOPB	null
DS99R103TVS/NOPB	null
DS99R104TVS/NOPB	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20220322001.1A	**PCN Date:**	April 18, 2022
Title:	Qualification of Cu as an alternate bond wire for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	~~Jun 18 2022~~ Jul 17, 2022	**Estimated Sample Availability:**	Date provided at sample request

Change Type:

☐	Assembly Site	☐	Design	☐	Wafer Bump Site
☒	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Revision A is to update proposed first ship date as shown above.

This PCN is to inform of the qualification of an alternate bond wire qualification as follows:

Current Bond Diameter	Additional Bond wire & diameter
Au, 1.0 mils	**Cu, 1.0 mils**

Reason for Change:

Continuity of supply.
1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties
2) Maximize flexibility within our Assembly/Test production sites.
3) Cu is easier to obtain and stock

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

None

Product Affected:

ADC08B200CIVS/NOPB	DP83816AVNG-EX/NOPB	DS15BR401TVSX/NOPB	DS92LV3241TVSX/NOPB
ADC08DL500CIVV/NOPB	DP83816AVNG/NOPB	DS90C124IVS/NOPB	DS99R101VS/NOPB
ADC08DL502CIVV/NOPB	DP83848IEVV/NOPB	DS90C124IVSX/NOPB	DS99R102VS/NOPB
ADC10DL065CIVS/NOPB	DP83848IEVVX/NOPB	DS90C124IVSX/S7002373	DS99R103TVS/NOPB
ADC12DL066CIVS/NOPB	DP83848IVV/NOPB	DS90C241IVS/NOPB	DS99R104TVS/NOPB
ADC12DL080CIVS/NOPB	DP83848IVVX/NOPB	DS90C241IVSX/NOPB	DS99R105VS/NOPB
CP3BT30VVAWQX/E7002123	DP83848IVVX/S7002477	DS90C241IVSX/S7002374	DS99R106VS/NOPB
CP3CN37VVAWQX/E7002124	DS15BR400TVS	DS90C3201VS/NOPB	SCAN90004TVS/E5002593
CP3CN37VVAWQX/NOPB	DS15BR400TVS/NOPB	DS90C3202VS/NOPB	SCAN90004TVS/NOPB
DP83640TVV	DS15BR400TVSX/NOPB	DS90LV004TVS	SCANSTA112VS
DP83816AVNG	DS15BR401TVS/NOPB	DS90LV004TVS/NOPB	

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: ADC10DL065GYTZ	Qual Device: DP83816AVNJ8MY	Qual Device: DS90C241IVTSZ6
AC	Autoclave 121C	96 Hours	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	3/231/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	3/Pass	3/Pass	3/Pass
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	3/231/0
WBP	Bond Pull	Wires	3/90/0	3/90/0	3/90/0
WBS	Ball Bond Shear	Wires	3/90/0	3/90/0	3/90/0

- QBS: Qual By Similarity
- Qual Device ADC10DL065GYTZ is qualified at LEVEL3-260CG
- Qual Device DP83816AVNJ8MY is qualified at LEVEL3-260CG
- Qual Device DS90C241IVTSZ6 is qualified at LEVEL3-260CG
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV: 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47: -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

TI Qualification ID: 20191015-131891

For questions regarding this notice, e-mails can be sent to the 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
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY

INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.