PCN Number:	PCN#20241001003.1	**PCN Date:**	October 01, 2024
Title:	Qualification of additional Assembly sites for select devices in the LQFP package		
Customer Contact:	Change Management Team	**Dept:**	Quality Services
Proposed 1st Ship Date:	December 30, 2024	**Sample requests accepted until:**	October 31, 2024*
***Sample requests received after October 31, 2024 will not be supported.**			

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

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing the qualification of additional Assembly sites for devices in the LQFP package listed below. Construction options are as follows:

QFP/LQFP/TQFP Build Sites	
Assembly Sites	TIEM, PHI, TAI, ASEK, AP1
Moold Compound	8072833 4211649-0042 SID#096695 8095183 4225114-0006 SID#096641 4212581 4212581 4205442 4209640 SID#101320866 SID#101306314
Mount Compound	4208458 4211470 8001746 8001756 SID#096580 SID#096588 4042504 SID# 101227300 SID#101175696
LeadFrame Finish	NiPdAu, Matte Sn
Bond Wire (mil)	Cu (0.8, 0.96, 1.0, 1.15, 1.2, 1.31, 1.98), Au (0.8, 0.96, 1.0, 1.15, 1.2, 1.31, 1.98)

As of today and until this PCN expires, the standard part number (for example, DP83848CVV/NOPB) is shipping with NiPdAu or Matte Sn lead finish. Upon expiration of this

PCN, the standard part number may continue to ship with either MatteSn or NiPdAu lead finish. See example ship possibilities below. Customers who desire NiPdAu lead finish should order either a G4 or E4 equivalent (for example, DP83848CVV/NOPBG4). Note that part numbers with a G4 or E4 suffix will run through NiPdAu-only flows. For reference, details of TI's labeling and symbolization are available here.

As two examples:

(A) For a customer order of 750 units of DP83848CVV/NOPB with 250 units SPQ (Standard Pack Quantity per Reel), TI can satisfy in one of the following ways:
- 3 Reels of NiPdAu finish.
- 3 Reels of Matte Sn finish
- 2 Reels of Matte Sn and 1 reel of NiPdAu finish.
- 2 Reels of NiPdAu and 1 reel of Matte Sn finish.

(B) For a customer order of 750 units of DP83848CVV/NOPBG4 with 250 units SPQ (Standard Pack Quantity per Reel), TI can satisfy in 3 Reels of NiPdAu finish.

Reason for Change:

Supply continuity

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:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
AP1	AKR	PHL	Cupang, Muntinlupa City
ASEK	ASF	TWN	Kaohsiung
TIPI	PHI	PHL	Baguio City
TI Taiwan	TAI	TWN	Chung Ho, New Taipei City
TI Melaka	CU6	MYS	Melaka

Sample product shipping label (not actual product label)

Product Affected:

DP83848CVV/NOPB	DP83848CVVX/NOPBG4	DP83848EVVX/NOPB	DP83848IVVX/NOPB
DP83848CVV/NOPBG4	DP83848EVV/NOPB	DP83848IVV/NOPB	DP83848IVVX/NOPBG4

DP83848CVVX/NOPB	DP83848EVV/NOPBG4	DP83848IVV/NOPBG4

TEXAS INSTRUMENTS

TI Information
Selective Disclosure

QFP Qualification Report

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

	Stress Test	Duration	PHI BQ76952PFB	TIEMA DS90C241IVTSZ6
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST/ THB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or Temperature Humidity Bias, 85C/85%RH	96 hours Or 264 hours Or 1000 hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/231/0
UHAST /AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0	3/66/0 (DP83865DVHNOPB)
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	ASEK LM97593VH/NOPB	TAI MSP430V541IPZ
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0	3/231/0
HAST/ THB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or Temperature Humidity Bias, 85C/85%RH	96 hours Or 264 hours Or 1000 hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0	3/231/0
UHAST /AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0	3/66/0 (MSP430FR6989IPZ MSP430FR5989IPM)
MQ	Manufacturability	-	Pass	Pass

	Stress Test	Duration	AP1 ADC08D1000K9F5 SN74V3680-15PEU
TC	Temperature Cycling -65/150C Or Temperature Cycling -55/125C	500 Cycles Or 700 Cycles	3/231/0
HAST/ THB	Biased HAST 130C/85%RH Or Biased HAST 110C/85%RH Or	96 hours Or 264 hours Or	3/231/0

	Stress Test	Duration	AP1 ADC08D1000K9F5 SN74V3680-15PEU
	Temperature Humidity Bias, 85C/85%RH	1000 hours	
HTSL	High Temp. Storage Bake 150C Or High Temp. Storage Bake 170C	1000 hours Or 420 hours	3/231/0
UHAST /AC	Unbiased HAST, 130C/85%RH Or Autoclave 121C	96 hours	3/231/0
SD	Solderability	8 Hour Steam age or 155C Dry Bake	3/66/0 (TL28L92FR)
MQ	Manufacturability	-	Pass

Devices DS90C241IVTSZ6, SN74V3680-15PEU, ADC08D1000K9F5, SN74V3680-15PEU, MSP430V541IPZ, and LM97593VH/NOPB qualified at MSL3 rating. Device BQ76952PFB qualified at MSL2 rating

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, and HTSL, as applicable
- The following are equivalent HTSL options based on activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours

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

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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