12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20170310000
Qualification of an improved material set for select devices in the PDIP package
Change Notification / Sample Request

Date: March 31, 2017
To: PREMIER FARNELL PCN

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.

We request you acknowledge 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 you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services

20170310000
Attachment: 1

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
AM26LS32ACN	null
CD4093BE	null
INA110KP	null
L293DNE	null
L293NEE4	null
LM2902KN	null
LM324N	null
LT1054CP	null
MAX232ECN	null
OP07CP	null
PCF8574AN	null
SN65HVD3082EP	null
SN7406N	null
SN7407N	null
SN74HCT244N	null
SN74LS00N	null
SN74LS32N	null
SN754410NE	null
SN75LBC184P	null
TL072CP	null
TL3845P	null
TL494IN	null
TLC555CP	null
TLC555IP	null
TLC7226CN	null
UA747CN	null
ULN2003AN	null
ULN2004AN	null

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

PCN Number:	20170310000	PCN Date:	March 31 2017
Title:	Qualification of an improved material set for select devices in the PDIP package		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	July 1 2017	Estimated Sample Availability:	Provided upon Request

Change Type:

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

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of a new material set for the devices listed in pg 2 of this notification as follows:

	Current	New
Mount Compound	4042500	**4147858**
Mold Compound	4042503	**4211880**
Leadframe Finish	NiPdAu	**NiPdAu (Roughened)**

Reason for Change:

Continuity of Supply

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

None

Anticipated impact on Material Declaration

☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website.

Changes to product identification resulting from this PCN:

Not Applicable

Product Affected

See Page 2

Qualification Report

UniBOM PDIP for TI Malaysia and TI Mexico

Product Attributes

Attributes	Qual Device: L293DNE	Qual Device: LT1013CP	Qual Device: MSP430F2013IN	Qual Device: NE5532P	Qual Device: SN74HC595N	Qual Device: SN74HCT540N	Qual Device: SN74LS03N
Assembly Site	FMX	FMX	MLA	FMX	MLA	MLA	MLA
Package Family	PDIP	PDIP	PDIP	PDIP	PDIP	PDIP	PDIP
Flammability Rating	UL 94 V-0	UL 94 V0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	SFAB	TSMC-10	SFAB	SFAB	SFAB	SFAB
Wafer Fab Process	JI1	JI1	TSMC EMB FLASH	JI1	74HC	74HC-NONEPI	JI1

Product Attributes

Attributes	Qual Device: TLC339IN	Qual Device: TPA3122D2N	Qual Device: TPS2041P	Qual Device: TS12A4514P	Qual Device: UCC37322P
Assembly Site	FMX	MLA	FMX	FMX	FMX
Package Family	PDIP	PDIP	PDIP	PDIP	PDIP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	DFAB	UMC FAB8AB	DFAB	DFAB	DFAB
Wafer Fab Process	LINCMOS_5/5	LBC5X	LBC3S	LBC3S	LBC3S

- Qual Devices SN74LS03N,TPA3122D2N,L293DNE,LT1013CP,TLC339IN,UCC37322P,NE5532P,SN74HCT540N,SN74HC595N,TPS2041P,TS12A4514P,MSP430F2013IN are qualified at Not Classified Moisture Sensitivity Level

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

Type	Test Name / Condition	Duration	Qual Device: L293DNE	Qual Device: LT1013CP	Qual Device: MSP430F2013IN	Qual Device: NE5532P	Qual Device: SN74HC595N	Qual Device: SN74HCT540N	Qual Device: SN74LS03N
AC	Autoclave 121C	96 Hours	3/231/0	-	3/231/0	-	3/225/0	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	Pass	-	-
FLAM	Flammability (UL 94V-0)	-	-	-	-	-	-	3/15/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	-	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	3/231/0	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	-	3/231/0	-	3/231/0	3/231/0	3/231/0
LI	Lead Fatigue	Leads	3/66/0	-	3/45/0	3/66/0	3/45/0	3/45/0	3/45/0
LI	Lead Pull to Destruction	Leads	3/144/0	-	3/126/0	3/72/0	3/144/0	3/180/0	3/126/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
PKG	Lead Finish Adhesion	Leads	3/45/0	-	3/45/0	3/45/0	3/45/0	2/30/0	3/45/0
SD	Solderability	8 Hours Steam Age	3/66/0	-	3/66/0	3/66/0	3/66/0	3/66/0	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	Results April 15 2017	3/231/0	3/231/0	-	3/231/0	3/231/0	3/231/0

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

Type	Test Name / Condition	Duration	Qual Device: TLC339IN	Qual Device: TPA3122D2N	Qual Device: TPS2041P	Qual Device: TS12A4514P	Qual Device: UCC37322P
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	-	1/77/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	-
FLAM	Flammability (UL 94V-0)	-	-	-	-	-	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	-	1/77/0	3/231/0
LI	Lead Fatigue	Leads	3/45/0	3/45/0	-	-	3/45/0
LI	Lead Pull to Destruction	Leads	3/126/0	3/180/0	-	-	3/70/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass
PKG	Lead Finish Adhesion	Leads	3/45/0	3/45/0	-	-	3/45/0
SD	Solderability	8 Hours Steam Age	3/66/0	3/66/0	-	-	3/66/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	1/77/0	3/231/0

- 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(through hole) and Green

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