



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN#20191212001.1
New Tray for Select Devices
Final Change Notification**

Date: January 29, 2020

Dear TI 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.

The customer should acknowledge receipt of this notification by email within **30** days of the date of receipt. Lack of acknowledgement of this notice within 30 days constitutes customer acceptance of the change.

Samples or additional data to support customer evaluation must be requested within 30 days of receipt of this notification. If samples are requested for evaluation the customer must provide evaluation results within the sample evaluation period indicated on page 3 of this notification. The Sample Evaluation Period begins on the date the customer receives samples from TI.

If the customer approved the change TI can proceed with implementation of the change. The proposed first ship date is shown on page 3.

If the customer does not approve the PCN or the approval response is not provided within the Sample Evaluation Period, TI can implement the change, but the customer may elect to place an order for unchanged product by the Last Time Buy Date for delivery by the Last Time Ship Date. TI cannot guarantee that shipments to the customer after any last time order is delivered will not include the changed material. If the customer places an order with delivery after the Last Time Shipment Date, the order may be fulfilled with changed material or any material processed to TI specifications at that future time.

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 Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your field sales representative.

Sincerely,
PCN Team
SC Business Services

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
TMS320DM365ZCE30	37020082
SCANSTA112VSX/NOPB	43140040
TMS320DM365ZCE30	99011FBM

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

PCN Number:		20191212001.1		PCN Date:		Jan 29 2020	
Title:	New Tray for Select Devices						
Customer Contact:		PCN Manager		Dept:	Quality Services		
Proposed 1st Ship Date:		Apr 28, 2020		Sample Eval Period:	90 days		
Last Time Buy Date:		June 28, 2020		Last Time Ship Date:	Sept 28, 2020		
Change Type:							
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process		<input type="checkbox"/>	Assembly Materials	
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification		<input type="checkbox"/>	Mechanical Specification	
<input type="checkbox"/>	Test Site	<input checked="" type="checkbox"/>	Packing/Shipping/Labeling		<input type="checkbox"/>	Test Process	
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material		<input type="checkbox"/>	Wafer Bump Process	
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials		<input type="checkbox"/>	Wafer Fab Process	
		<input type="checkbox"/>	Part number change				

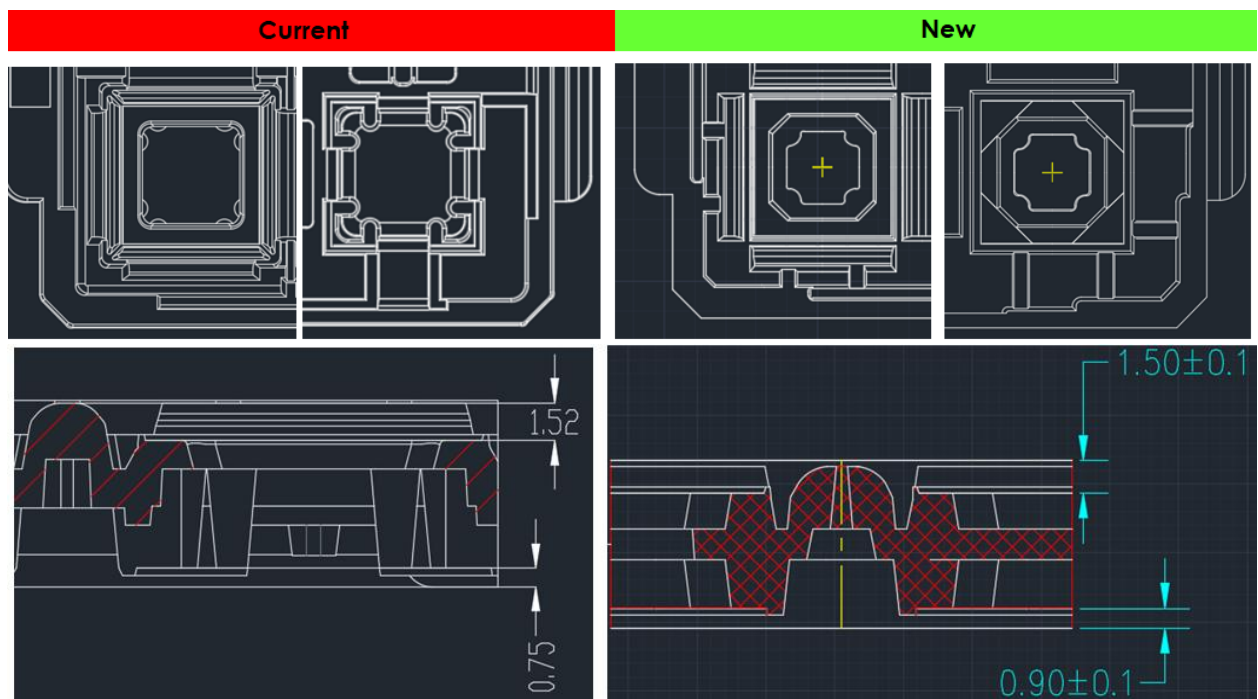
PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of a new tray for the devices listed below. A comparison summary of the tray differences as follows:

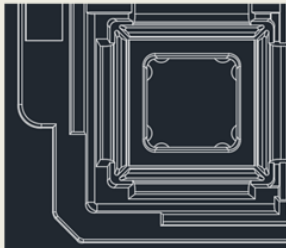
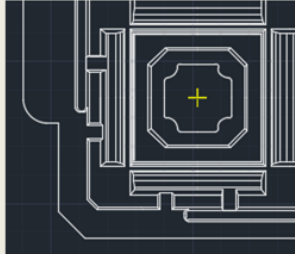
Group 1 Change Description - 14 x 14 TQFP Tray Change:

Tray Comparison Tables:

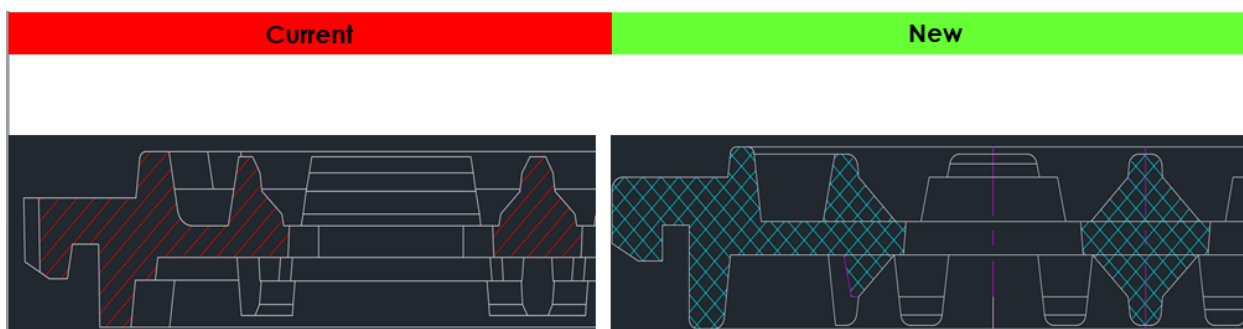


	4223432-0001	4224972-0001
Supplier	UBOT	Peak
Floor design	Circular square	Octagon
Cavity size	16.55 +/- 0.08	16.10 +/- 0.08
Seating height	1.52 mm (top) 0.75 mm (bottom)	1.5 mm(top) 0.9 mm (bottom)

Engineering Validation Results – Attribute Comparison

	EXISTING	PROPOSED	COMMENT
	4223432-0001	4224972-0001	CHANGE
* Supplier Part Number :	UQ1414 1.0 0615XB	ND 1414 1.0 0615 13 REV.G	CHANGE
* Gram Weight:	155	157	CHANGE
* Surface Resistivity :	10 ⁴ - 10 ¹⁰ ohm/sq	10 ⁴ - 10 ¹⁰ ohm/sq	UNCHANGE
* Package Size :	14x14x1.0	14x14x1.0	UNCHANGE
* Package Type :	TQFP	TQFP	UNCHANGE
Temperature Rating :	150C	150C	UNCHANGE
Matrix (Column X Rows) :	06x15	06x15	UNCHANGE
Fence design	Fillet	Fillet	UNCHANGE
Raw Material :	Carbon Fiber	Carbon Fiber	UNCHANGE
Color :	BLACK	BLACK	UNCHANGE
FLOOR DESIGN			CHANGE

Group 3 Change Description - 13 x 13 BGA Tray Change:



	4212436-0001	4224857-0001
Supplier	UBOT	Peak
Tray Fence	Chamfered	Fillet
Cavity size (LSL)	13.30 + 0.08 13.30 - 0.04	13.30 + 0.08 13.30 - 0.08
Seating ht	1.64 mm (top) 2.00 mm (bottom)	1.27 mm(top) 1.37 mm (bottom)

MATERIAL DESCRIPTION	EXISTING	PROPOSED	COMMENT
	4212436-0001	4224857-0001	CHANGE
* Supplier Name :	UBOT	Peak	CHANGE
* Supplier Part Number :	UB13131.40820XB	NX BG1313 1.74 0820 13	CHANGE
* Gram Weight:	110	132.5	CHANGE
* Surface Resistivity :	1 exp5 - 1 exp11	1 exp5 - 1 exp11	NO CHANGE
* Package Size :	13x13	13x13	NO CHANGE
* Package Type :	BGA	BGA	NO CHANGE
Temperature Rating :	150C	150C	NO CHANGE
Matrix (Column X Rows) :	8x20	8x20	NO CHANGE
Raw Material :	Carbon fiber	Carbon fiber	NO CHANGE
Thickness :	7.62 mm	7.62	NO CHANGE
Color :	BLACK	BLACK	NO CHANGE
Floor Design	Yes	Yes	NO CHANGE

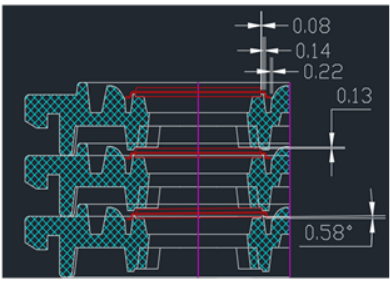
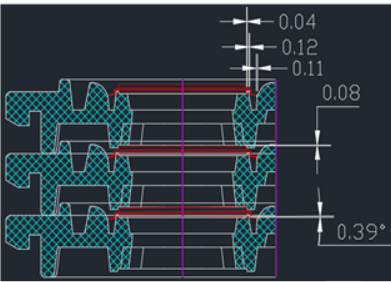
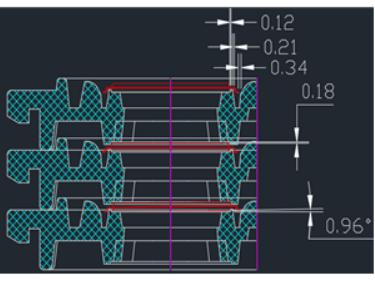
ITEM DESCRIPTION	4212436-0001 UB13131.40820XB			4224857-0001 NX BG1313 1.74 0820 13			COMMENT
	DIM	Upper Limits	Lower Limits	DIM	Upper Limits	Lower Limits	
Overall Length	322.6	322.85	322.35	322.6	322.85	322.35	NO CHANGE
Layout Length	315.0	315.25	314.75	315.0	315.25	314.75	NO CHANGE
Layout Width	135.9	136.15	135.65	135.9	136.15	135.65	NO CHANGE
Layout Length on Top Stack frame	311.15	311.40	311.02	311.15	311.40	311.02	NO CHANGE
Layout Width on Top Stack frame	132.08	132.33	131.95	132.08	132.33	131.95	NO CHANGE
Layout Length on Bottom Stack frame	311.66	311.91	311.53	311.66	311.91	311.53	NO CHANGE
Layout Width on Bottom Stack frame	132.59	132.84	132.46	132.59	132.84	132.46	NO CHANGE
End Tab Length	92.1	92.35	91.85	92.1	92.35	91.85	NO CHANGE
Overall Height	7.62	7.75	7.49	7.62	7.75	7.49	NO CHANGE
Stack Height	1.27	1.40	1.14	1.27	1.40	1.14	NO CHANGE
Tray Matrix No.	08x20			08x20			NO CHANGE
Pitch M	15.45	15.58	15.32	15.45	15.58	15.32	NO CHANGE
Pitch M3	15.00	15.13	14.87	15.00	15.13	14.87	NO CHANGE
Pitch M1	15.00	15.13	14.87	15.00	15.13	14.87	NO CHANGE
Pitch M2	15.00	15.13	14.87	15.00	15.13	14.87	NO CHANGE
Distance of tray singulation from corner of tray	34.30	34.55	34.05	34.30	34.55	34.05	NO CHANGE
Tray singulation width	25.40	25.53	25.27	25.40	25.53	25.27	NO CHANGE
Tray Lifting surface height	2.54	2.67	2.41	2.54	2.67	2.41	NO CHANGE
Cavity Size (X)	13.30	13.38	13.26	13.30	13.38	13.22	CHANGE
Cavity Size (Y)	13.30	13.38	13.26	13.30	13.38	13.22	CHANGE
Pedestal Design	SLOPE			SLOPE			NO CHANGE
Package seating height (Top)	1.64	1.71	1.57	1.27	1.37	1.17	CHANGE
Package seating height (Bottom)	2.00	2.05	1.92	1.35	1.45	1.25	CHANGE

Reason for Change:
New tray offers improved centering of device in tray pocket
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):
None

Changes to product identification resulting from this PCN:
New tray
Product Affected:
Group 1 Device list: <div>SCANSTA112VSX/NOP B</div> Group 3 Device list: <div>TMS320DM365ZCE30</div>

Group 1 Device Fit Analysis:

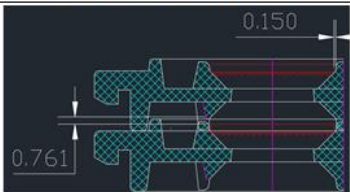
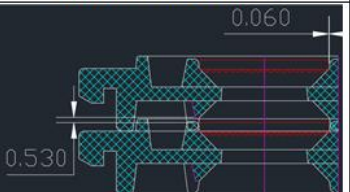
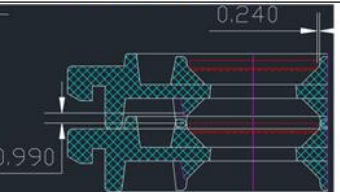


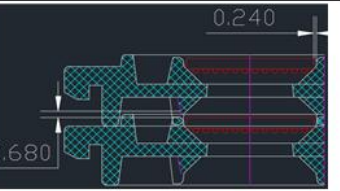
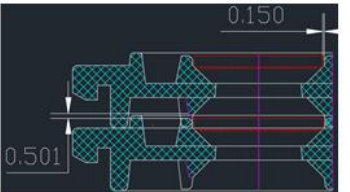
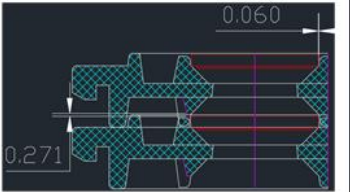
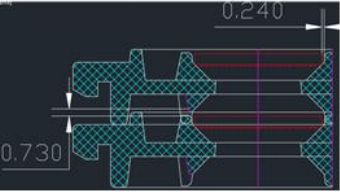

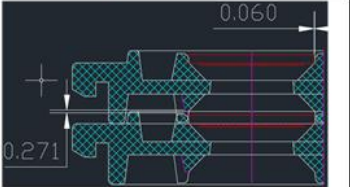
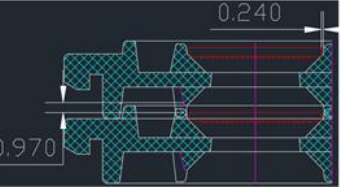
FIT ANALYSIS

PKG	NOMINAL TRAY vs NOMINAL PACKAGE	MINIMUM TRAY MAXIMUM PACKAGE	MAXIMUM TRAY vs MINIMUM PACKAGE
PZP, PDT, PNP, NEZ, PZT			

- X and Y clearance is not greater than 0.5 mm
- Rotation angle is less than 10 degrees

Group 3 Device Fit Analysis:

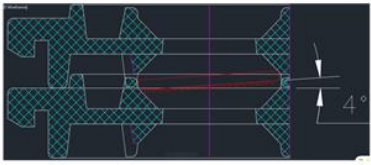
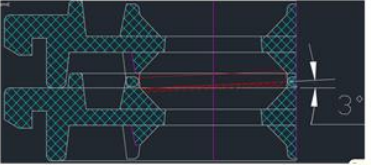
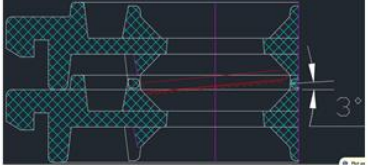
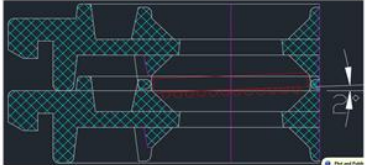
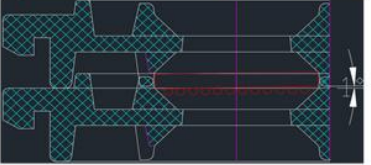
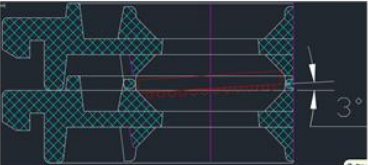
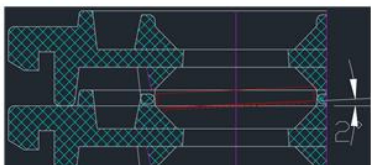
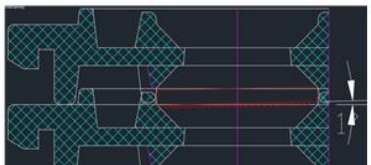
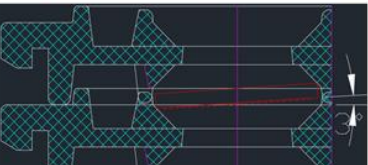
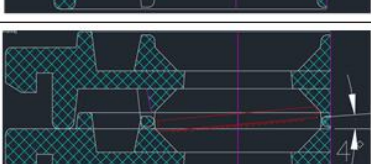
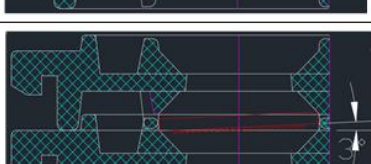

FIT ANALYSIS

PACKAGE	NOMINAL TRAY vs NOMINAL PACKAGE	TRAY MINIMUM vs PACKAGE MAXIMUM	TRAY MAXIMUM vs PACKAGE MINIMUM
ZCE/GCE			
ZWQ			
ZXK			
ZAA			

- X and Y clearance is not greater than 5 mm

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FIT ANALYSIS

PACKAGE	NOMINAL TRAY vs NOMINAL PACKAGE	TRAY MINIMUM vs PACKAGE MAXIMUM	TRAY MAXIMUM vs PACKAGE MINIMUM
ZCE/GCE			
ZWQ			
ZXK			
ZAA			

- Angle is less than 10degrees

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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

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