TEXAS INSTRUMENTS 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20200609000.1
Qualification of CDAT as an additional Assembly site & Bump site for select WCSP device
Change Notification / Sample Request

Date: June 22, 2020
To: TOKYO ELECTRON DEVICE (DSTR) 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.

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 samples or additional data are 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

20200609000.1
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
TPS22916BYFPT	null
TPS22916BYFPR	null

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

PCN Number:	20200609000.1	**PCN Date:**	June 22, 2020
Title:	Qualification of CDAT as an additional assembly site & Bump site for select WCSP device		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Sept 22, 2020	**Estimated Sample Availability:**	Date provided at sample request

Change Type:

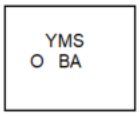
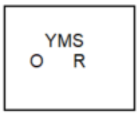
☒	Assembly Site	☐	Design	☒	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☐	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of CDAT as an additional assembly site & bump site for WCSP devices shown below. No material differences between sites.

Package Marking Difference:

	TI Clark	TI CDAT
Marking Difference	 YM = YEAR MONTH DATE CODE S = ASSEMBLY SITE CODE ROW 2 = DEVICE CODE O = PIN A1	 YM = YEAR MONTH DATE CODE S = ASSEMBLY SITE CODE ROW 2 = DEVICE CODE O = PIN A1

Reason for Change:

Continuity of Supply

Anticipated impact on Form, Fit, 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 at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
CLARK	QAB	PHL	Angeles City, Pampanga
CDAT	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
G4
MADE IN: Malaysia
2DC: 2Q:

MSL 2 /260C/1 YEAR	SEAL DT
MSL 1 /235C/UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)TO:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T)LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO:USA
(22L) ASO: MLA (23L) ACO: MYS

Product Affected:

TPS22916BYFPR	TPS22916BYFPT

Qualification Report

Approve Date 02-Jun-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS22916BYFP	QBS Product Reference: TPS22916BYFP	QBS Product Reference: TPS22916CYFP	QBS Process Reference: TPA6140A2YFF
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass	Pass	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-
HBM	ESD - HBM	2500 V	1/3/0	-	1/3/0	-
CDM	ESD - CDM	1000 V	1/3/0	-	1/3/0	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-
HTOL	Life Test, 140C	480 Hours	-	-	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	-	3/231/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	1/6/0	3/18/0
PD	Physical Dimensions	--	-	-	-	-
SBS	Solder Ball Shear	--	-	-	-	-
TC	Temperature Cycle -55/125C	700 Cycles	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	1/77/0	-	3/231/0	3/231/0

Type	Test Name / Condition	Duration	QBS Process Reference: TPS62620YFF	QBS Process Reference: TPS65830YFF (JET)	QBS Package Reference: TPS2120YFPR
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HBM	ESD - HBM	2500 V	-	-	-
CDM	ESD - CDM	1000 V	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	1/77/0
HTOL	Life Test, 140C	480 Hours	-	-	-
HTOL	Life Test, 150C	300 Hours	-	3/231/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	1/77/0
LU	Latch-up	(per JESD78)	3/18/0	318/0	-
PD	Physical Dimensions	--	-	-	-
SBS	Solder Ball Shear	--	-	-	-
TC	Temperature Cycle -55/125C	700 Cycles	3/231/0	3/231/0	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device TPS22916BYFP is qualified at LEVEL1-260C
- 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

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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