12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20210426000.1A
Qualification of CDAT as an alternate AT site for the Select Devices
Change Notification / Sample Request

Date: August 04, 2021
To: MOUSER PCN

Dear Customer:

Revision A is to announce the addition of new devices that were not included on the original PCN notification.

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

20210426000.1
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
BQ24311DSGR	null
BQ24311DSGT	null
BQ24314CDSGR	null
LM27761DSGR	null
LM27761DSGT	null
LM5165DRCR	null
LM5165DRCT	null
LM5165XDRCR	null
LM5165XDRCT	null
LM5165YDRCR	null
LM5165YDRCT	null
LM5166DRCR	null
LM5166DRCT	null
LM5166XDRCR	null
LM5166XDRCT	null
LM5166YDRCR	null
LM5166YDRCT	null
TPS2549RTER	null
TPS2549RTET	null
TPS51275B-1RUKR	null
TPS51275B-1RUKT	null
TPS51312DRCR	null
TPS7A1901DRBR	null
TPS7A1901DRBT	null
TPS7A8300RGRR	null
TPS7A8300RGRT	null
TPS7A8400RGRR	null
TPS7A8400RGRT	null
TPS7A8500RGRR	null
TPS7A8500RGRT	null
UCC27611DRVT	null

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

PCN Number:	20210426000.1A	PCN Date:	August 04, 2021
Title:	Qualification of CDAT as an alternate Assembly site for Select Devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Aug. 4, 2021	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 announce the addition of new devices that were not included on the original PCN notification. These new devices are highlighted and **bolded** in the device list below. The expected first shipment date for these new devices will be 90 days from this notice for these newly added devices only.

Texas Instruments Incorporated is announcing the qualification of CDAT as an additional Assembly site for the list of devices shown below. Construction differences between the 2 sites are as follows:

	Clark	CDAT
Mold Compound	4208625 or 4222198	4222198
# Mount Compound	4207768	4207123

- applies to BQ294713DSGR/T only

Reason for Change:

Supply continuity

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)

Product Affected:

BQ24311DSGR	BQ296106DSGT	**LM27761DSGR**	TPS70618DRVR
BQ24311DSGT	BQ296107DSGR	**LM27761DSGT**	TPS70618DRVT
BQ24314CDSGR	BQ296107DSGT	**LM5165DRCR**	TPS70625DRVR
BQ24314CDSGT	BQ296202DSGR	**LM5165DRCT**	TPS70625DRVT
BQ294682DRVR	BQ296202DSGT	**LM5165XDRCR**	TPS70628DRVR
BQ294682DRVT	BQ296203DSGR	**LM5165XDRCT**	TPS70628DRVT
BQ294700DSGR	BQ296203DSGT	**LM5165YDRCR**	TPS70630DRVR
BQ294700DSGT	BQ296216DSGR	**LM5165YDRCT**	TPS70630DRVT
BQ294701DSGR	BQ296216DSGT	**LM5166DRCR**	TPS70633DRVR
BQ294701DSGT	BQ296217DSGR	**LM5166DRCT**	TPS70633DRVT
BQ294702DSGR	BQ296217DSGT	**LM5166XDRCR**	TPS70925DRVR
BQ294702DSGT	BQ771600DPJR	**LM5166XDRCT**	TPS70925DRVT
BQ294704DSGR	BQ771600DPJT	**LM5166YDRCR**	**TPS7A1901DRBR**
BQ294704DSGT	BQ771601DPJR	**LM5166YDRCT**	**TPS7A1901DRBT**
BQ294705DSGR	BQ771601DPJT	**SN1607002RUKR**	**TPS7A8300RGRR**
BQ294705DSGT	BQ771800DPJR	**TPS2549RTER**	**TPS7A8300RGRT**
BQ294711DSGR	BQ771800DPJT	**TPS2549RTET**	**TPS7A8400RGRR**
BQ294711DSGT	BQ771806DPJR	**TPS51275B-1RUKR**	**TPS7A8400RGRT**
BQ294713DSGR	BQ771806DPJT	**TPS51275B-1RUKT**	**TPS7A8500RGRR**
BQ294713DSGT	BQ771808DPJR	**TPS51285B-1RUKR**	**TPS7A8500RGRT**
BQ296103DSGR	BQ771808DPJT	**TPS51285B-1RUKT**	**UCC27611DRVR**
BQ296103DSGT	BQ771815DPJR	**TPS51312DRCR**	**UCC27611DRVT**
BQ296106DSGR	BQ771815DPJT	**TPS51312DRCT**	

Qualification Report

Approve Date 12-Apr-2021

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

Type	Test Name / Condition	Duration	Qual Device: BQ294682DRVR	Qual Device: TPS706XXDRVR	Qual Device: TPS70925DRVR	QBS Package Reference: BQ294504DRVR	QBS Package Reference: MCS3010AIRGT	QBS Package Reference: TLV75733PDRV	QBS Package Reference: TMP117AIDRV
AC	Autoclave 121C	96 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	-	-	-
EDR	**EEPROM Data Retention 170C	420 Hours	QBS (1)	QBS (2)	QBS (3)	-	-	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	3/231/0	3/231/0	3/231/0
HTOL	Life Test, 150C	300 Hours	QBS (1)	QBS (2)	QBS (3)	-	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	QBS (1)	QBS (2)	QBS (3)	-	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	QBS (1)	QBS (2)	QBS (3)	-	3/231/0	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	QBS (1)	QBS (2)	QBS (3)	3/231/0	3/231/0	3/231/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	QBS (1)	QBS (2)	QBS (3)	-	3/231/0	3/231/0	3/231/0
YLD	Yield Evaluation	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass	Pass	Pass

- QBS: Qual By Similarity
- Qual Device BQ294682DRVR is qualified at LEVEL2-260C
- Qual Device TPS70925DRVR and TPS706XXDRVR are qualified at LEVEL1-260CG
- 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

Note:
(1) BQ294682DRVR QBS's to BQ294504DRVR and TMP117AIDRV Package Reliability tests
(2) TPS706XXDRVR, XX=18,25,28,30,33 QBS's to TLV75733PDRV Package Reliability tests and TMP117AIDRV HTOL
(3) TPS70925DRVR QBS's to MCS3010AIRGT Package Reliability tests and TMP117AIDRV HTOL
(4) Devices listed in PCN Product Affected will QBS to the Qual devices and their product attributes have been verified to be similar to Qual Devices.

Qualification Report

Approve Date 13-Apr-2021

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

Type	Test Name / Condition	Duration	Qual Device: BQ294700DSGT	Qual Device: BQ296103DSGT	Qual Device: BQ296202DSGT	QBS Package Reference: DRV8847RTE	QBS Package Reference: OPA2333PIDSG
AC	Autoclave 121C	96 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	-
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	Pass	Pass
ED	Electrical Characterization, side by side	25C	Pass	-	-	-	-
HAST	Biased HAST, 110C/85%RH	264 Hours	QBS (1)	QBS (2)	QBS (3)	-	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	-
HTOL	Life Test, 125C	1000 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	QBS (1)	QBS (2)	QBS (3)	3/231/0	-
HTSL	High Temp Storage Bake 170C	420 Hours	QBS (1)	QBS (2)	QBS (3)	-	3/231/0
YLD	Yield Evaluation	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass
TC	Temperature Cycle, -65/150C	500 Cycles	QBS (1)	QBS (2)	QBS (3)	3/231/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	QBS (1)	QBS (2)	QBS (3)	-	3/231/0

- QBS: Qual By Similarity
- Qual Devices BQ294700DSGT, BQ296103DSGT and BQ296202DSGT are qualified at LEVEL2-260CG
- 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

Note:
(1) BQ294700DSGT QBS's to DRV8847RTE and OPA2333PIDSG Package Reliability tests
(2) BQ296103DSGT QBS's to DRV8847RTE and OPA2333PIDSG Package Reliability tests
(3) BQ296202DSGT QBS's to DRV8847RTE and OPA2333PIDSG Package Reliability tests
(4) Devices listed in PCN Product Affected will QBS to the Qual devices and their product attributes have been verified to be similar to Qual Devices

TI Information
Selective Disclosure

Qualification Report

Approve Date 01-Dec-2020

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

Type	Test Name / Condition	Duration	QBS Product Reference: BQ771800DPJ	QBS Process Reference: TPS51217DSC	QBS Package Reference: BQ771811DPJ
AC	Autoclave 121C	96 hours	1/77/0	3/231/0	3/231/0
CDM	ESD - CDM	1500 V	-	3/9/0	1/3/0
HAST	Biased HAST 130C/85%RH	96 Hours	-	3/231/0	-
HBM	ESD - HBM	2000 V	-	3/9/0	-
HTSL	High Temp Storage Bake, 170C	420 Hours	-	3/231/0	-
LU	Latch-up	(per JESD78)	1/6/0	3/18/0	1/6/0
MSL	Thermal Path Integrity, JEDEC, L2	(MSL 2 / 260C)	-	-	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	-	-	3/15/0
SD	Solderability	Steam age, 8 hours; PB-Free solder	-	-	3/66/0
TC	Temperature Cycle, -65/150C	500 cycles	1/77/0	3/231/0	3/231/0
XRAY	X-ray	(top side only)	-	3/15/0	3/15/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- QBS: Qual By Similarity
- Qual Device BQ771803DPJ is qualified at LEVEL2-260C
- 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

Qualification Report

Approve Date 01-Dec-2020

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

Type	Test Name / Condition	Duration	Qual Device: BQ771802DPJ	Qual Device: BQ771809DPJ	Qual Device: BQ771817DPJ	QBS Product Reference: BQ771800DPJ	QBS Process Reference: TPS51217DSC	QBS Package Reference: BQ771811DPJ
-	Manufacturability (TQ - Testability)	(per mfg. Site specification)	1/Pass	1/Pass	1/Pass	-	-	1/Pass
AC	Autoclave 121C	96 hours	-	-	-	-	3/231/0	3/231/0
CDM	ESD - CDM	1500 V	-	-	-	-	3/9/0	-
DS	Die Shear	QSS 009-009	-	-	-	-	-	3/30/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	1/Pass	3/60/0	1/Pass
HAST	Biased HAST 130C/85%RH	96 Hours	-	-	-	-	3/231/0	-
HBM	ESD - HBM	2000 V	-	-	-	-	3/9/0	-
HTSL	High Temp Storage Bake, 170C	420 Hours	-	-	-	-	3/231/0	-
LU	Latch-up	(per JESD78)	-	-	-	1/6/0	3/18/0	1/6/0
MSL	Thermal Path Integrity, JEDEC, L2	(MSL 2 / 260C)	-	-	-	-	-	3/36/0
PD	Physical Dimensions	(per mechanical drawing)	-	-	-	-	-	3/15/0
SD	Solderability	Steam age, 8 hours; PB-Free solder	-	-	-	-	-	3/66/0
TC	Temperature Cycle - 65/150C	500 Cycles	-	-	-	1/77/0	3/231/0	3/231/0
WBP	Bond Pull	76 Wires, 3 units min	-	-	-	-	-	3/228/0
WBS	Ball Bond Shear	76 balls, 3 units min	-	-	-	-	-	3/228/0
XRAY	X-ray	(top side only)	-	-	-	-	3/15/0	3/15/0

- 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(SMT) and Green
- QBS: Qual By Similarity
- Qual Device BQ771802DPJ is qualified at LEVEL2-260C
- Qual Device BQ771809DPJ is qualified at LEVEL2-260C
- Qual Device BQ771817DPJ is qualified at LEVEL2-260C

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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