12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20160808001
Qualify New Assembly Material set for Selected Device(s)
Change Notification / Sample Request

Date: 8/30/2016
To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

This is an announcement of a change to devices that are 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

20160808001
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
TLV62130RGTT	null
TPA6132A2RTET	null
TPS51200DRCT	null
TPS61160DRVR	null
TPS61161ADRVR	null
TPS61161DRVT	null
TPS62140RGTT	null
TPS74201RGWT	null
TLV62130ARGTT	null
TPS51200DRCR	null
TPS74201RGWRG4	null
TPS62132RGTR	null
TPS40192DRCR	null
TPS51285BRUKR	null
TPS61170DRVR	null
TPS62140RGTR	null
TPS62150RGTR	null
BQ24232HRGTT	null
TLV62130RGTR	null
TLV62150RGTR	null
TPS22965DSGT	null
TPS54318RTER	null
TPS54318RTET	null
TPS54618RTER	null
TPS62142RGTT	null
TPS62150ARGTT	null
TPS74401RGWT	null
TPS62065DSGT	null
TPS22967DSGR	null
TPS53631RSBT	null
TPS53661RSBT	null
TPS54218ARTER	null
TPS54218ARTET	null
TPS74201RGWR	null
TPS74401RGWR	null
TPS7A8001DRBT	null
BQ294532DRVT	null
TPA2012D2RTJR	null
TPS61170DRVT	null
BQ24040DSQR	null
BQ24192IRGER	null
BQ294502DRVR	null
BQ294504DRVR	null
BQ294532DRVR	null
BQ294592DRVR	null
MSP430G2533IRHB32R	null
TLV62065DSGR	null
TPS51220ARSNR	null
TPS51622ARSMR	null
TPS51622RSMR	null
TPS61161ADRVT	null

BQ24193RGET	null
TPS62150ARGTR	null
TPS51631RSMT	null
TPS62133RGTT	null
TPS54418RTET	null
TPS62143RGTT	null
TPS61160DRVT	null
TLV62130ARGTR	null
MSP430F2112IRHBT	null
TPS61161DRVR	null
TPS62152RGTT	null
TPS51631RSMR	null
TPA6130A2RTJR	null
TPS54418ARTET	null
TPA6130A2RTJT	null
TPS7A8001DRBR	null
MSP430G2533IRHB32T	null

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

PCN Number:	20160808001	**PCN Date:**	08/30/2016
Title:	Qualify New Assembly Material set for Selected Device(s)		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	11/30/2016	**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 new assembly material for devices listed in "Product affected" section below. Devices will remain in current assembly facility and intended piece part changes will be as follows:

Material Differences:

Material	Current	Proposed
Mount compound	4207768	4207123
Mold compound	4208625	4222198, 4208625

Reason for Change:

Continuity of supply.

1) To align with world technology trends and use assembly materials with enhanced mechanical properties

2) Maximize flexibility within our Assembly/Test production sites.

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:

None.

Product Affected:

BQ24040DSQR	MSP430G2203IRHB32R	TPA6132A2RTER	TPS54618RTER
BQ24040DSQT	MSP430G2203IRHB32T	TPA6132A2RTET	TPS54618RTET
BQ24190RGER	MSP430G2213IRHB32R	TPA6133A2RTJR	TPS55010RTER
BQ24190RGET	MSP430G2213IRHB32T	TPA6133A2RTJT	TPS55010RTET
BQ24192HRGER	MSP430G2233IRHB32R	TPS22965DSGT	TPS61021ADSGR
BQ24192HRGET	MSP430G2233IRHB32T	TPS22967DSGR	TPS61021ADSGT
BQ24192IRGER	MSP430G2253IRHB32R	TPS22967DSGT	TPS61021DSGT

BQ24192IRGET	MSP430G2253IRHB32T	TPS2543RTER	TPS61158DRVR
BQ24192RGER	MSP430G2303IRHB32R	TPS2543RTET	TPS61160DRVR
BQ24192RGET	MSP430G2303IRHB32T	TPS2544RTER	TPS61160DRVRG4
BQ24193HRGER	MSP430G2313IRHB32R	TPS2544RTET	TPS61160DRVT
BQ24193HRGET	MSP430G2313IRHB32T	TPS2546RTET	TPS61160DRVTG4
BQ24193RGER	MSP430G2333IRHB32R	TPS40192DRCR	TPS61161ADRVR
BQ24193RGET	MSP430G2333IRHB32T	TPS40192DRCT	TPS61161ADRVT
BQ24195LRGER	MSP430G2353IRHB32R	TPS40192DRCTG4	TPS61161DRVR
BQ24195LRGET	MSP430G2353IRHB32T	TPS40193DRCR	TPS61161DRVRG4
BQ24196RGER	MSP430G2403IRHB32R	TPS40193DRCRG4	TPS61161DRVT
BQ24196RGET	MSP430G2403IRHB32T	TPS40193DRCT	TPS61161DRVTG4
BQ24232HRGTT	MSP430G2413IRHB32R	TPS40193DRCTG4	TPS61165DRVR
BQ24232RGTR	MSP430G2413IRHB32T	TPS51200DRCR	TPS61165DRVR-S
BQ24232RGTT	MSP430G2433IRHB32R	TPS51200DRCRG4	TPS61165DRVRG4
BQ24232RGTTG4	MSP430G2433IRHB32T	TPS51200DRCT	TPS61165DRVT
BQ24295RGER	MSP430G2453IRHB32R	TPS51200DRCTG4	TPS61165DRVTG4
BQ24295RGET	MSP430G2453IRHB32T	TPS51220ARSNR	TPS61170DRVR
BQ24296MRGER	MSP430G2513IRHB32R	TPS51220ARSNT	TPS61170DRVRG4
BQ24296MRGET	MSP430G2513IRHB32T	TPS51220RHBR	TPS61170DRVT
BQ24296RGER	MSP430G2533IRHB32R	TPS51220RHBRG4	TPS61170DRVTG4
BQ24296RGET	MSP430G2533IRHB32T	TPS51220RHBT	TPS62061DSGR
BQ24297RGER	MSP430G2553IRHB32R	TPS51220RHBTG4	TPS62061DSGT
BQ24297RGET	MSP430G2553IRHB32T	TPS51220RRHBR	TPS62063DSGR
BQ25700RSNR	MSP430V402IRHB32R	TPS51225BRUKR	TPS62063DSGT
BQ25700RSNT	MSP430V413IRHB32R	TPS51225BRUKT	TPS62065DSGR
BQ294502DRVR	MSP430V415IRHB32R	TPS51225CRUKR	TPS62065DSGT
BQ294502DRVT	MSP430V592IRHB32R	TPS51225CRUKT	TPS62131RGTR
BQ294504DRVR	SN0774401RGWR	TPS51225RUKR	TPS62131RGTT
BQ294504DRVT	SN0774401RGWT	TPS51225RUKT	TPS62132RGTR
BQ294515DRVR	SN1004055RTER	TPS51275BRUKR	TPS62132RGTT
BQ294515DRVT	SN1006030RTER	TPS51275BRUKT	TPS62133RGTR
BQ294524DRVR	SN1007054RTER	TPS51275CRUKR	TPS62133RGTT
BQ294524DRVT	SN1304056RSBR	TPS51275CRUKT	TPS62140RGTR
BQ294532DRVR	SN1304056RSBT	TPS51275RUKR	TPS62140RGTRF0
BQ294532DRVT	SN1304057RSBR	TPS51275RUKT	TPS62140RGTT
BQ294582DRVR	SN1304057RSBT	TPS51285ARUKR	TPS62141RGTR
BQ294582DRVT	SN1305017RTER	TPS51285ARUKT	TPS62141RGTT
BQ294592DRVR	SN1601027RGTR	TPS51285BRUKR	TPS62142RGTR
BQ294592DRVT	SN1601027RGTT	TPS51285BRUKT	TPS62142RGTT
BQ294602DRVR	SN2806RGER	TPS51311RGTR	TPS62143RGTR
BQ294602DRVT	SN2806RGET	TPS51622ARSMR	TPS62143RGTT
BQ294604DRVR	SN2807RGER	TPS51622ARSMT	TPS62150ARGTR
BQ294604DRVT	SN2807RGET	TPS51622RSMR	TPS62150ARGTT
FX018	SN2808RGER	TPS51622RSMT	TPS62150RGTR

HPA00351DRCR	SN2808RGET	TPS51624RSMR	TPS62150RGTRF0
HPA00667DRVR	SN2816RGER	TPS51624RSMT	TPS62150RGTT
HPA00735DRVR	SN2816RGET	TPS51631RSMR	TPS62151RGTR
HPA00810-2/2	SN2910RGER	TPS51631RSMT	TPS62151RGTT
HPA00810ADRVR-2/2	SN2910RGET	TPS53310RGTR	TPS62152RGTR
HPA00835RTER	SN2927RSNR	TPS53310RGTT	TPS62152RGTT
HPA00874RTER	SN2927RSNT	TPS53311RGTR	TPS62153RGTR
HPA00929RTJR	SN51285ARUKR	TPS53311RGTT	TPS62153RGTT
HPA01081RTJR	THS4551IRGTR	TPS53631RSBR	TPS65262-1RHBR
HPA01186RGER	THS4551IRGTT	TPS53631RSBT	TPS65262-1RHBT
HPA01197RGER	TLV61021DSGR	TPS53640ARSBR	TPS65262-2RHBR
HPA02150RGER	TLV61021DSGT	TPS53640ARSBT	TPS65262-2RHBT
HPA02163RGER	TLV62065DSGR	TPS53640RSBR	TPS65262RHBR
HPA022642RTJR	TLV62065DSGT	TPS53640RSBT	TPS65262RHBT
MSP430A151IRHBT	TLV62130ARGTR	TPS53641RSBR	TPS65633AKRTER
MSP430F2112IRHBR	TLV62130ARGTT	TPS53641RSBT	TPS65633BKRTER
MSP430F2112IRHBT	TLV62130RGTR	TPS53661RSBR	TPS74201RGWR
MSP430F2112TRHBR	TLV62130RGTT	TPS53661RSBT	TPS74201RGWRG4
MSP430F2112TRHBT	TLV62150ARGTR	TPS54218ARTER	TPS74201RGWT
MSP430F2122IRHBR	TLV62150ARGTT	TPS54218ARTET	TPS74201RGWTG4
MSP430F2122IRHBT	TLV62150RGTR	TPS54318ARTER	TPS74401RGWR
MSP430F2122TRHBR	TLV62150RGTT	TPS54318ARTET	TPS74401RGWRG4
MSP430F2122TRHBT	TPA2012D2RTJR	TPS54318MRTER	TPS74401RGWT
MSP430F2132IRHBR	TPA2012D2RTJRG4	TPS54318MRTET	TPS74401RGWTG4
MSP430F2132IRHBT	TPA2012D2RTJT	TPS54318RTER	TPS7A8001DRBR
MSP430F2132TRHBR	TPA2012D2RTJTG4	TPS54318RTET	TPS7A8001DRBT
MSP430F2132TRHBT	TPA6130A2RTJR	TPS54418ARTER	TPS7A8801RTJR
MSP430G2113IRHB32R	TPA6130A2RTJRG4	TPS54418ARTET	TPS7A8801RTJT
MSP430G2153IRHB32R	TPA6130A2RTJT	TPS54418RTER	TS3A227ERVAR
MSP430G2153IRHB32T	TPA6130A2RTJTG4	TPS54418RTET	

Qualification Report

CDAT QFN UniBOM Enterprise Qualification

Approve Date 14-Jul-2016

Product Attributes

Attributes	Qual Device 1: 430F2132IRHBR	Qual Device 2: BQ24196RGER	Qual Device 3: TPS51285BRUKR	Qual Device 4: TPS53641RSBR
Assembly Site	CHENGDU A/T	CHENGDU A/T	CHENGDU A/T	CHENGDU A/T
Package Family	VQFN	VQFN	WQFN	WQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC WFT	RFAB	RFAB	RFAB
Wafer Fab Process	TSMC EMB FLASH	LBC7	LBC7X	LBC7X

Attributes	Qual Device 5: TPS62140RGTR	QBS Package Reference 1: BQ294504DRVR	QBS Package Reference 2: TRS3122ERGER
Assembly Site	CHENGDU A/T	CHENGDU A/T	CHENGDU A/T
Package Family	VQFN	WQFN	VQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MIHO-8	RFAB	RFAB
Wafer Fab Process	LBC7X	LBC7	LBC7

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL2-260CG : TPS62140RGTR,BQ24196RGER,430F2132IRHBR, TPS51285BRUKR,TPS53641RSBR, BQ294504DRVR, TRS3122ERGER

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device 1: 430F2132IRHBR	Qual Device 2: BQ24196RGER	Qual Device 3: TPS51285BRUKR	Qual Device 4: TPS53641RSBR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	-
FLAM	Flammability (IEC 695-2-2)	-	-	-	-	-
FLAM	Flammability (UL 94V-0)	-	-	-	-	-
FLAM	Flammability (UL-1694)	-	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
WBP	Bond Pull	76 Wire, 3 units min	3/228/0	3/228/0	3/228/0	3/228/0
WBS	Ball Bond Shear	76 balls, 3 units min	3/228/0	3/228/0	3/228/0	3/228/0

Type	Test Name / Condition	Duration	Qual Device 5: TPS62140RGTR	QBS Package Reference 1: BQ294504DRVR	QBS Package Reference 2: TRS3122ERGER
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-	Pass
FLAM	Flammability (IEC 695-2-2)	-	-	-	3/15/0
FLAM	Flammability (UL 94V-0)	-	-	-	3/15/0
FLAM	Flammability (UL-1694)	-	-	-	3/15/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0
WBP	Bond Pull	76 Wire, 3 units min	3/228/0	-	3/228/0
WBS	Ball Bond Shear	76 balls, 3 units min	3/228/0	-	3/228/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- 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 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