



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN#20180319003**

**Qualification of an additional material set for select devices in the QFN package  
Change Notification / Sample Request**

**Date:** March 29, 2018  
**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](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services

**20180319003**  
**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
ADS8528SRGCT	null
ADS8568SRGCT	null
BQ24040DSQT	null
BQ24074RGTT	null
BQ24086DRCR	null
BQ24192IRGET	null
BQ24295RGET	null
BQ24296RGET	null
BQ24298RTWT	null
BQ24610RGET	null
BQ24773RUYT	null
BQ25504RGTT	null
BQ25505RGRT	null
BQ27411DRZT-G1A	null
BQ27411DRZT-G1C	null
BQ27441DRZT-G1A	null
BQ27441DRZT-G1B	null
BQ40Z60RHBT	null
BQ500110RGZT	null
BQ500215RGCT	null
BQ771815DPJT	null
CC1101RGP	null
CC110LRGPR	null
CC1310F128RGZT	null
CC2530F128RHAT	null
CC2530F32RHAT	null
CC2530F64RHAT	null
CC2531F256RHAT	null
CC2540F128RHAR	null
CC2540F128RHAT	null
CC2540F256RHAR	null
CC2540F256RHAT	null
CC2541F128RHAT	null
CC2541F256RHAT	null
CDCLVD1216RGZT	null
CDCM6208V2RGZR	null
DRV2667RGPT	null
DRV8835DSSR	null
DRV8837DSGR	null
INA230AIRGTT	null
LM27761DSGT	null
MSP430F5242IRGZT	null
MSP430F5342IRGZT	null
MSP430FR5721IRHAT	null
MSP430FR5725IRHAR	null
MSP430FR5727IRHAT	null
MSP430FR5731IRHAT	null
MSP430FR5737IRHAT	null
MSP430FR5739IRHAR	null
MSP430G2153IRHB32T	null
MSP430G2553IRHB32R	null
SN65DP159RSBT	null
TLV320AIC3101IRHBT	null
TLV320AIC3104IRHBR	null
TLV320AIC3204IRHBR	null
TLV320AIC3254IRHBR	null
TPA2012D2RTJTG4	null

TPA3131D2RHBT	null
TPA6130A2RTJR	null
TPS24740RGET	null
TPS24741RGET	null
TPS24742RGET	null
TPS24770RGET	null
TPS24771RGET	null
TPS24772RGET	null
TPS2543RTET	null
TPS2553DRV	null
TPS2557DRBT	null
TPS2560DRCT	null
TPS259250DRCT	null
TPS259261DRCT	null
TPS25942ARVCT	null
TPS25944ARVCT	null
TPS25944LRVCT	null
TPS40422RHAT	null
TPS43061RTET	null
TPS51116RGER	null
TPS51116RGET	null
TPS51123ARGER	null
TPS51200DRCR	null
TPS51200DRCT	null
TPS51621RHAT	null
TPS54218RTET	null
TPS54228DRCT	null
TPS54319RTET	null
TPS54320RHLR	null
TPS54320RHLT	null
TPS54336ADRCT	null
TPS54561DPRT	null
TPS54620RGYR	null
TPS54620RGYT	null
TPS54620RHLR	null
TPS54821RHLT	null
TPS60150DRVR	null
TPS60151DRVR	null
TPS61020DRCR	null
TPS61088RHLT	null
TPS61093DSKT	null
TPS61161ADRVT	null
TPS61161DRVR	null
TPS61165DRVR	null
TPS61165DRV	null
TPS61170DRVR	null
TPS61170DRV	null
TPS61200DRCR	null
TPS61200DRCT	null
TPS62090RGTT	null
TPS62092RGTT	null
TPS62093RGTT	null
TPS62110RSAR	null
TPS62110RSAT	null
TPS62111RSAT	null
TPS62130RGTT	null
TPS62140RGTT	null
TPS62175DQCT	null
TPS62177DQCT	null
TPS62400DRCT	null
TPS62401DRCT	null
TPS62410DRCR	null
TPS62410DRCT	null
TPS62420DRCR	null
TPS62420DRCT	null
TPS62736RGYT	null
TPS62750DSKT	null
TPS63000DRCR	null
TPS63001DRCR	null
TPS63002DRCR	null

TPS63030DSKT	null
TPS63031DSKT	null
TPS65023RSBT	null
TPS65070RSLR	null
TPS65073RSLT	null
TPS65138DRCR	null
TPS65218B1RSLT	null
TPS65251RHAR	null
TPS65251RHAT	null
TPS65261RHBT	null
TPS65266RHBT	null
TPS65400RGZT	null
TPS65651RTET	null
TPS65910A1RSL	null
TPS65910AA1RSL	null
TPS73701DRBR	null
TPS74801DRCT	null
TPS75005RGWT	null
TPS7A3301RGWT	null
TPS7A4700RGWT	null
TPS7A4901DRBT	null
TPS7A7100RGTT	null
TPS7A7200RGTT	null
TPS7A7300RGWT	null
TPS7A8001DRBR	null
TPS7A8400RGRT	null
TPS7A8500RGRT	null
TRF37A731DSGT	null
TRF37B731DSGT	null
TRF37C731DSGT	null
TRF37D731DSGT	null
UCC27524DSDT	null
UCC27611DRVVT	null
UCD90120RGCT	null
UCD9222RGZT	null

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

<b>PCN Number:</b>	20180319003	<b>PCN Date:</b>	March 29 2018									
<b>Title:</b>	Qualification of an additional material set for select devices in the QFN package											
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services									
<b>Proposed 1<sup>st</sup> Ship Date:</b>	June 29 2018	<b>Estimated Sample Availability:</b>	Provided upon Request									
<b>Change Type:</b>												
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process									
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Assembly Materials									
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification									
<input type="checkbox"/>		<input type="checkbox"/>	Mechanical Specification									
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling									
<input type="checkbox"/>		<input type="checkbox"/>	Test Process									
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material									
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process									
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials									
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process									
	<input type="checkbox"/>		Part number change									
<b>PCN Details</b>												
<b>Description of Change:</b>												
Texas Instruments is pleased to announce the qualification of an additional material set for the devices listed in pg 2 of this notification as follows:												
<table border="1"> <thead> <tr> <th></th> <th><b>Current</b></th> <th><b>Additional</b></th> </tr> </thead> <tbody> <tr> <td><b>Mount Compound</b></td> <td>4207768</td> <td><b>4207123</b></td> </tr> <tr> <td><b>Mold Compound</b></td> <td>4208625</td> <td><b>4222198</b></td> </tr> </tbody> </table>					<b>Current</b>	<b>Additional</b>	<b>Mount Compound</b>	4207768	<b>4207123</b>	<b>Mold Compound</b>	4208625	<b>4222198</b>
	<b>Current</b>	<b>Additional</b>										
<b>Mount Compound</b>	4207768	<b>4207123</b>										
<b>Mold Compound</b>	4208625	<b>4222198</b>										
<b>Reason for Change:</b>												
Continuity of Supply												
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>												
None												
<b>Anticipated impact on Material Declaration</b>												
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	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 <a href="#">TI ECO website</a> .									
<b>Changes to product identification resulting from this PCN:</b>												
Not Applicable												
<b>Product Affected</b>												
See Page 2												



## Qualification Report

### Clark UniBOM 4222198 and 4207123 Enterprise Qualification

Approve Date 05-Mar-2018

#### Product Attributes

Attributes	Qual Device: 27541DRZR-V200	Qual Device: 430FR5969IRGZR	Qual Device: ADS1220IRVAR	Qual Device: ADS8548SRGCR
Assembly Site	CLARK AT	CLARK AT	CLARK AT	CLARK AT
Package Family	VSON	VQFN	VQFN	VQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	DFAB, TSMC WFT	DMOS 6	AIZU	DM055
Wafer Fab Process	LBC4-X, TSMC 0.25	HPE035	HPA07	50HPA07HF.03DR

- QBS: Qual By Similarity
- Qual and QBS Devices qualified at LEVEL2-260CG: 27541DRZR-V200, ADS1220IRVAR
- Qual Devices qualified at LEVEL3-260CG: ADS8548SRGCR, 430FR5969IRGZR
- Device 27541DRZR-V200 contains multiple dies.

Attributes	Qual Device: CC2541F256RHAR	Qual Device: DRV10866DSCR	Qual Device: RGC-DC	Qual Device: S320F28030RSHT
Assembly Site	CLARK AT	CLARK AT	CLARK AT	CLARK-AT
Package Family	VQFN	WSON	VQFN	VQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	TSMC WFT	RFAB	-	DM055
Wafer Fab Process	0.18-DP5M-FLASH	LBC7	-	18F05.25L

- QBS: Qual By Similarity
- Qual and QBS Devices qualified at LEVEL2-260CG: DRV10866DSCR
- Qual Devices qualified at LEVEL3-260CG: RGC-DC, CC2541F256RHAR, S320F28030RSHT

Attributes	Qual Device: TPS63000DRCR	Qual Device: TPS65631WDSKR	QBS Package Reference: TPS7A4701QRGWRQ1	QBS Package Reference: TRS3122ERGER
Assembly Site	CLARK-AT	CLARK AT	CLARK AT	CHENGDU A/T
Package Family	VSON	WSON	QFN, 5 x 5 MM	VQFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MIHO 8	RFAB	FREISING (FFAB)	RFAB
Wafer Fab Process	LBC7	LBC7X	BICOM3-HV	LBC7

- QBS: Qual By Similarity
- Qual Device qualified at LEVEL1-260CG: TPS65631WDSKR
- Qual and QBS Devices qualified at LEVEL2-260CG: TPS63000DRCR, TPS7A4701QRGWRQ1, TRS3122ERGER

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

Type	Test Name / Condition	Duration	Qual Device: 27541DRZR-V200	Qual Device: 430FR5969IRGZR	Qual Device: ADS1220IRVAR	Qual Device: AD8548SRGCR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0
BLR	Board Level Reliability, Temp Cycle, -40/125C	1000 Cycles	-	-	-	-
ED	Electrical Distributions	Cpk>1.67 Room, Hot, & Cold	-	-	-	-
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	-	3/231/0	-	-
HBM	ESD - HBM	1000 V	-	-	-	-
CDM	ESD - CDM	250 V	-	3/9/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	3/229/0	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	-
LU	Latch-up	(per JESD78)	-	-	-	-
PD	Physical Dimensions	--	3/15/0	3/15/0	3/15/0	3/15/0
PTC	Power Temperature Cycle, -40/125C	1000 Cycles	-	-	-	-
SD	Surface Mount Solderability	8 Hours Steam Age, Pb-Free	-	-	-	-
SD	Surface Mount Solderability	Pb	-	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	-	-
UHAST	Unbiased HAST, 110C/85%RH	264 Hours	-	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-	-
VM	Visual / Mechanical	(per mfg. Site specification)	3/984/0	3/984/0	3/984/0	3/984/0
WBP	Bond Pull	Wires	3/228/0	3/228/0	-	-
WBS	Ball Bond Shear	Wires	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 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 Results**  
**Data Displayed as: Number of lots / Total sample size / Total failed**

Type	Test Name / Condition	Duration	Qual Device: CC2541F256RHAR	Qual Device: DRV10866DSCR	Qual Device: RGC-DC	Qual Device: S320F28030RSHHT
AC	Autoclave 121C	96 Hours	-	3/231/0	-	3/231/0
BLR	Board Level Reliability, Temp Cycle, -40/125C	1000 Cycles	-	-	1/32/0	-
ED	Electrical Distributions	Cpk>1.67 Room, Hot, & Cold	-	-	-	-
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	-	-	-	-
HBM	ESD - HBM	1000 V	-	-	-	-
CDM	ESD - CDM	250 V	-	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	-	-	3/230/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	-	-
PD	Physical Dimensions	--	3/15/0	3/15/0	-	3/15/0
PTC	Power Temperature Cycle, -40/125C	1000 Cycles	-	-	-	-
SD	Surface Mount Solderability	8 Hours Steam Age, Pb-Free	-	-	-	3/66/0
SD	Surface Mount Solderability	Pb	-	-	-	-
TC	Temperature Cycle, -55/125C	700 Cycles	3/230/0	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	-	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	-	3/219/0
UHAST	Unbiased HAST, 110C/85%RH	264 Hours	3/231/0	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	-
VM	Visual / Mechanical	(per mfg. Site specification)	3/984/0	3/984/0	-	3/984/0
WBP	Bond Pull	Wires	-	3/228/0	-	3/228/0
WBS	Ball Bond Shear	Wires	-	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 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 Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS63000DRCCR	Qual Device: TPS65631WDSKR	QBS Package Reference: TPS7A4701QRGWRQ1	QBS Package Reference: TRS3122ERGER
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	3/231/0
BLR	Board Level Reliability, Temp Cycle, -40/125C	1000 Cycles	-	-	1/32/0	-
ED	Electrical Distributions	Cpk>1.67 Room, Hot, & Cold	-	-	3/90/0	-
ED	Electrical Characterization	Per Datasheet Parameters	-	-	-	1/30/0
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
HBM	ESD - HBM	1000 V	-	-	1/3/0	-
CDM	ESD - CDM	250 V	-	-	1/3/0	-
HTOL	Life Test, 125C	1000 Hours	-	-	3/231/0	-
HTOL	Life Test, 150C	300 Hours	-	-	-	1/77/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	1/45/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	3/230/0	-	-
LU	Latch-up	(per JEDEC78)	-	-	1/12/0	1/6/0
PD	Physical Dimensions	--	3/15/0	3/15/0	3/30/0	3/30/0
PTC	Power Temperature Cycle, -40/125C	1000 Cycles	-	-	1/50/0	-
SD	Surface Mount Solderability	8 Hours Steam Age, Pb-Free	3/66/0	-	1/15/0	1/22/0
SD	Surface Mount Solderability	Pb	-	-	1/15/0	-
TC	Temperature Cycle, -55/125C	700 Cycles	-	-	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/225/0	3/231/0	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	-	-	-
UHAST	Unbiased HAST, 110C/85%RH	264 Hours	-	-	-	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	-	-
VM	Visual / Mechanical	(per mfg. Site specification)	3/984/0	3/984/0	-	3/984/0
WBP	Bond Pull	Wires	3/228/0	3/228/0	3/90/0	3/228/0
WBS	Ball Bond Shear	Wires	3/228/0	3/228/0	3/90/0	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 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 JEDEC47 : -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:**

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	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>