



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>
BQ24170RGYT	null
BQ24610RGET	null
BQ25505RGRT	null
BQ500410ARGZT	null
CC2540F256RHAT	null
DRV8812RHDT	null
DRV8837DSGT	null
DRV8850RGYR	null
THS4509RGTT	null
TPA2006D1DRBR	null
TPS2560DRCT	null
TPS2592BLDRCT	null
TPS43060RTET	null
TPS51200DRCT	null
TPS54294RSAT	null
TPS54295RSAT	null
TPS61020DRCR	null
TPS61081DRCTG4	null
TPS61200DRCTG4	null
TPS61202DRCT	null
TPS62040DRCR	null
TPS62110RSATG4	null
TPS63000DRCT	null
TPS63001DRCR	null
TPS65023RSBT	null
TPS65051RSMT	null
TPS73701DRBR	null
ADS1148IRHBT	null
ADS1220IRVAT	null
ADS1257IRGWT	null
ADS1292IRSMT	null
ADS1292IRSMT	null
ADS8028IRTJT	null
ADS8568SRGCT	null
ADS9110IRGET	null
ADS9120IRGET	null
AFE031AIRGZT	null
AFE4400RHAT	null
AFE4490RHAT	null
BQ24040DSQR	null
BQ24040DSQT	null
BQ24072RGTR	null
BQ24072RGTT	null
BQ24072TRGTT	null
BQ24073RGTT	null
BQ24074RGTR	null
BQ24075RGTR	null
BQ24075RGTT	null
BQ24075TRGTT	null
BQ24079RGTR	null
BQ24133RGYT	null
BQ24160RGET	null
BQ24166RGET	null
BQ24167RGET	null
BQ24172RGYT	null
BQ24192IRGET	null
BQ24192RGET	null

BQ24193RGET	null
BQ24195RGET	null
BQ24196RGET	null
BQ24210DQCT	null
BQ24230RGTR	null
BQ24230RGTT	null
BQ24232HARGTT	null
BQ24232HRGTT	null
BQ24232RGTT	null
BQ24250RGET	null
BQ24251RGET	null
BQ24253RGET	null
BQ24257RGET	null
BQ24259RGET	null
BQ24261MRGET	null
BQ24261RGET	null
BQ24262RGET	null
BQ24270RGET	null
BQ24271RGET	null
BQ24278RGET	null
BQ24295RGET	null
BQ24296RGET	null
BQ24297RGET	null
BQ24600RVAT	null
BQ24610RGER	null
BQ24617RGET	null
BQ24618RGET	null
BQ24630RGET	null
BQ24640RVAT	null
BQ24707RGRT	null
BQ24725ARGRT	null
BQ24745RHDT	null
BQ24751ARHDT	null
BQ24770RUYT	null
BQ24773RUYT	null
BQ24780SRUYT	null
BQ25071DQCT	null
BQ25504RGTT	null
BQ25570RGRR	null
BQ25570RGRT	null
BQ25890HRTWT	null
BQ27441DRZT-G1A	null
BQ27441DRZT-G1B	null
BQ27510DRZT-G3	null
BQ27541DRZR-G1	null
BQ27541DRZT-V200	null
BQ29200DRBT	null
BQ29209DRBR	null
BQ294706DSGT	null
BQ294708DSGT	null
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BQ296111DSGT	null
BQ296114DSGT	null
BQ29700DSET	null
BQ29703DSET	null
BQ29716DSET	null
BQ29717DSET	null
BQ29718DSET	null
BQ29723DSET	null
BQ29729DSET	null
BQ29732DSET	null
BQ40Z50RSMT	null
BQ40Z50RSMT-R1	null
BQ40Z60RHBT	null
BQ50002ARHBT	null
BQ50002RHBT	null
BQ500210RGZT	null
BQ500211RGZT	null

BQ500212ARGZT	null
BQ500215RGCT	null
BQ500412RGZT	null
BQ501210RGCT	null
BQ51013ARHLT	null
BQ51013BRHLR	null
BQ51013BRHLT	null
BQ51050BRHLR	null
BQ51050BRHLT	null
BQ51051BRHLT	null
BQ771605DPJT	null
CC1101RGPR	null
CC1101RGPT	null
CC110LRGPR	null
CC110LRGPT	null
CC1110F32RHHR	null
CC1110F32RHHT	null
CC1120RHBR	null
CC1120RHBT	null
CC1121RHBT	null
CC1125RHBR	null
CC1125RHBT	null
CC115LRGPR	null
CC1310F128RGZT	null
CC1310F32RGZT	null
CC1310F64RGZT	null
CC2420RGZR	null
CC2500RGP	null
CC2500RGPR	null
CC2510F32RHHR	null
CC2510F32RHHT	null
CC2530F256RHAR	null
CC2531F256RHAT	null
CC2540F128RHAR	null
CC2540F256RHAR	null
CC2541F128RHAR	null
CC2541F256RHAR	null
CC2541F256RHAT	null
CC2543RHBR	null
CC2630F128RGZT	null
CC2640F128RGZT	null
CC2640F128RHBT	null
CC2640F128RSMT	null
CC2650F128RGZT	null
CDCLVD1204RGTT	null
CDCLVD1208RHDT	null
CDCLVD1213RGTT	null
CDCLVD1216RGZT	null
CDCLVD2102RGTT	null
CDCM6208V1RGZT	null
CDCM6208V2RGZT	null
CDCUN1208LPRHBT	null
DAC5578SRGET	null
DAC7750IRHAT	null
DAC7760IRHAR	null
DAC8750IRHAT	null
DAC8760IRHAR	null
DRV10866DSCR	null
DRV2603RUNR	null
DRV2603RUNT	null
DRV2700RGPT	null
DRV8308RHAT	null
DRV8313RHHR	null
DRV8662RGPT	null
DRV8833CRTET	null
DRV8833RTYT	null
DRV8834RGET	null
DRV8836DSSR	null
DRV8837DSGR	null
DRV8838DSGR	null

DRV8838DSGT	null
DRV8839DSSR	null
DRV8846RGET	null
DRV8881PRHRT	null
HD3SS215RTQT	null
HD3SS460IRHRT	null
HD3SS460RHRT	null
INA188IDRJR	null
INA230AIRGTT	null
INA826AIDRGT	null
LDC0851HDSGT	null
LDC1101DRCT	null
LM2775DSGT	null
LM27761DSGR	null
LM27761DSGT	null
MSP430F5229IRGCT	null
MSP430F5239IRGCT	null
MSP430F5249IRGCT	null
MSP430F5259IRGCT	null
MSP430F5342IRGZR	null
MSP430F5342IRGZT	null
MSP430FR5721IRHAT	null
MSP430FR5739IRHAR	null
MSP430FR5739IRHAT	null
MSP430FR5969IRGZR	null
MSP430G2303IRHB32T	null
MSP430G2433IRHB32T	null
MSP430G2553IRHB32R	null
MSP430I2041TRHBT	null
OPA2314AIDRBT	null
OPA2333AIDRBT	null
OPA857IRGTT	null
SN65DP149RSBT	null
SN65DP159RSBT	null
SN65HVD72DRBT	null
SN65HVD75DRBT	null
SN65LV1023ARHBT	null
SN65LV1224BRHBT	null
SN75DP149RSBT	null
TAS2505IRGET	null
TCA9535RGER	null
TCA9539RGER	null
THS3217IRGVT	null
THS4541IRGTT	null
TLK105RHBR	null
TLK106RHBR	null
TLK106RHBT	null
TLV320AIC3101IRHBT	null
TLV320AIC3104IRHBT	null
TLV320AIC3105IRHBT	null
TLV320AIC3204IRHBR	null
TLV320AIC3204IRHBT	null
TLV320AIC3254IRHBT	null
TLV320AIC33IRGZR	null
TLV320AIC33IRGZT	null
TLV62065DSGT	null
TLV62084DSGR	null
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TLV62130ARGTT	null
TLV62130RGTR	null
TLV62130RGTT	null
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TLV62150RGTT	null
TMDS171IRGZT	null
TMDS171RGZT	null

TMDS181IRGZT	null
TMDS181RGZT	null
TPA2005D1DRBR	null
TPA2006D1DRBT	null
TPA2012D2RTJR	null
TPA2012D2RTJT	null
TPA3131D2RHBT	null
TPA6130A2RTJR	null
TPA6211A1DRBR	null
TPS2062CDRBT-2	null
TPS22965DSGT	null
TPS2388RTQT	null
TPS2420RSAT	null
TPS24740RGET	null
TPS24741RGET	null
TPS24742RGET	null
TPS24770RGET	null
TPS24772RGET	null
TPS2500DRCT	null
TPS25200DRV	null
TPS2540RTET	null
TPS2543RTET	null
TPS2552DRVR	null
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TPS2557DRBT	null
TPS2561DRCT	null
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TPS25910RSAT	null
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TPS259251DRCT	null
TPS259260DRCT	null
TPS259261DRCT	null
TPS2592AADRCT	null
TPS2592ALDRCT	null
TPS2592BADRCT	null
TPS25944ARVCT	null
TPS28225DRBT	null
TPS40041DRBR	null
TPS40190DRCT	null
TPS40192DRCT	null
TPS40222DRPT	null
TPS40304DRCT	null
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TPS40425RHAT	null
TPS40428RHAT	null
TPS43061RTET	null
TPS51116RGET	null
TPS51120RHBT	null
TPS51120RHBTG4	null
TPS51123ARGET	null
TPS51200DRCR	null
TPS53317ARGBT	null
TPS53632GRSMT	null
TPS53632RSMT	null
TPS54061DRBR	null
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TPS54319RTET	null
TPS54320RHLR	null
TPS54327DRCT	null
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TPS54335ADRCT	null

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TPS54341DPRT	null
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TPS54418RTER	null
TPS54418RTET	null
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TPS54495RSAT	null
TPS54526RSAT	null
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TPS54561DPRT	null
TPS54620RGYR	null
TPS54620RGYT	null
TPS54620RHLR	null
TPS54620RHLT	null
TPS54622RHLT	null
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TPS54678RTET	null
TPS54821RHLR	null
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TPS55010RTET	null
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TPS55340RTER	null
TPS55340RTET	null
TPS59641RSLT	null
TPS60150DRVR	null
TPS60150DRVT	null
TPS60151DRVT	null
TPS60231RGTT	null
TPS61030RSAR	null
TPS61081DRCR	null
TPS61081DRCT	null
TPS61087DRCT	null
TPS61088RHLT	null
TPS61093DSKR	null
TPS61160DRVR	null
TPS61160DRVT	null
TPS61161ADRVT	null
TPS61161DRVR	null
TPS61161DRVT	null
TPS61165DRVR	null
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TPS61170DRVR	null
TPS61170DRVT	null
TPS61200DRCR	null
TPS61200DRCT	null
TPS61201DRCT	null
TPS61230DRCT	null
TPS61232DRCT	null
TPS61240DRVT	null
TPS61291DRVT	null
TPS62060DSGT	null
TPS62063DSGT	null
TPS62065DSGR	null
TPS62065DSGT	null
TPS62067DSGT	null
TPS62090RGTT	null
TPS62091RGTT	null
TPS62092RGTT	null
TPS62093RGTT	null
TPS62110RSAT	null
TPS62111RSAR	null
TPS62111RSAT	null
TPS62112RSAT	null
TPS62130ARGTR	null
TPS62130ARGTT	null
TPS62130RGTR	null
TPS62130RGTT	null

TPS62132RGTR	null
TPS62132RGTT	null
TPS62133RGTR	null
TPS62133RGTT	null
TPS62134ARGTT	null
TPS62134BRGTT	null
TPS62134CRGTT	null
TPS62140ARGTT	null
TPS62140RGTR	null
TPS62140RGTT	null
TPS62141RGTT	null
TPS62142RGTR	null
TPS62142RGTT	null
TPS62143RGTR	null
TPS62143RGTT	null
TPS62150ARGTT	null
TPS62150RGTR	null
TPS62150RGTT	null
TPS62152RGTT	null
TPS62153RGTT	null
TPS62175DQCR	null
TPS62175DQCT	null
TPS62177DQCR	null
TPS62177DQCT	null
TPS62400DRCR	null
TPS62400DRCT	null
TPS62402DRCT	null
TPS62410DRCT	null
TPS62420DRCT	null
TPS62510DRCT	null
TPS62736RGYT	null
TPS62737RGYT	null
TPS62740DSSR	null
TPS62740DSST	null
TPS62742DSST	null
TPS627451DSST	null
TPS62745DSST	null
TPS63001DRCT	null
TPS63002DRCR	null
TPS63002DRCT	null
TPS63030DSKR	null
TPS63030DSKT	null
TPS63031DSKR	null
TPS63031DSKT	null
TPS65023RSBR	null
TPS65053RGER	null
TPS65053RGET	null
TPS65070RSLT	null
TPS65130RGER	null
TPS65217BRSLT	null
TPS65217CRSLR	null
TPS65217CRSLT	null
TPS65217DRSLT	null
TPS65218B1RSLT	null
TPS65233-1RTET	null
TPS65250RHAT	null
TPS65251RHAR	null
TPS65251RHAT	null
TPS65261RHBT	null
TPS65262-2RHBT	null
TPS65265RHBT	null
TPS65266-1RHBT	null
TPS65266RHBT	null
TPS65283-1RGER	null
TPS65283RGET	null
TPS65290ZBRHFT	null
TPS65400RGZT	null
TPS65651RTET	null
TPS65652RTET	null
TPS65910A31A1RSLT	null



TPS65910A3A1RSLR	null
TPS70615DRV	null
TPS70618DRV	null
TPS70625DRV	null
TPS70628DRV	null
TPS70630DRV	null
TPS70912DRV	null
TPS70915DRV	null
TPS70925DRV	null
TPS70930DRV	null
TPS70933DRV	null
TPS70950DRV	null
TPS73701DRBT	null
TPS74701DRCT	null
TPS74801DRCT	null
TPS74901DRCT	null
TPS74901RGWT	null
TPS7A3001DRBT	null
TPS7A3301RGWT	null
TPS7A3501DRV	null
TPS7A4700RGWR	null
TPS7A4700RGWT	null
TPS7A4701RGWR	null
TPS7A4701RGWT	null
TPS7A4901DRBT	null
TPS7A7100RGTT	null
TPS7A7100RGWT	null
TPS7A7200RGTT	null
TPS7A7200RGWT	null
TPS7A7300RGWT	null
TPS7A8001DRBR	null
TPS7A8001DRBT	null
TPS7A8101DRBR	null
TPS7A8101DRBT	null
TPS7A8300RGRT	null
TPS7A8300RGWT	null
TPS7A8400RGRT	null
TPS7A8500RGRT	null
TRF37A73IDSGT	null
TRF37A75IDSGT	null
TRF37B73IDSGT	null
TRF37B75IDSGT	null
TRF37C73IDSGT	null
TRF37C75IDSGT	null
TRF37D73IDSGT	null
TS3A227ERVAR	null
TS3L501ERUAR	null
TUSB1210BRHBR	null
TUSB1210BRHBT	null
UCC27200ADRCT	null
UCC27211DPRT	null
UCC27516DRST	null
UCC27523DSDT	null
UCC27524DSDT	null
UCC27526DSDT	null
UCC27611DRV	null
UCD7138DRST	null
UCD90120ARGCT	null
UCD90124ARGCT	null
UCD90160ARGCT	null
UCD90160RGCT	null
UCD9090ARGZT	null
UCD9090RGZT	null
UCD9222RGZT	null
UCD9246RGCT	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	-	DM05S
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 JEESD78)	-	-	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 JEESD47 : -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.

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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>