12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20170815000B
Qualification of CIRTEK as an additional Assembly & Test site for select devices
Change Notification / Sample Request

Date: May 14, 2018
To: PREMIER FARNELL PCN

Dear Customer:

Revision B is to update the description of change to provide correction on the marking differences. We apologize for any inconvenience this may have caused.

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 proposed first ship date is indicated 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, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services

20170815000B
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
TPD1E05U06DPYR	null
TPD1E05U06DPYT	null
TPD1E10B06DPYR	null
TPD1E10B09DPYR	null
TPD4E02B04DQAR	null
TPD4E05U06DQAR	null
TPD4EUSB30DQAR	null
TPD4S010DQAR	null

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

PCN Number:	20170815000B	PCN Date:	May 14, 2018
Title:	Qualification of CIRTEK as an additional Assembly & Test site for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services

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 B is to update the description of change to provide correction on the marking differences. We apologize for any inconvenience this may have caused.

Texas Instruments Incorporated is announcing the qualification CIRTEK as an Additional Assembly and Test Site for select devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City
ASEN	ASN	CHN	Suzhou
JCET	JCE	CHN	Jiangyin
CIRTEK	**CTK**	**PHL**	**Biñan**

Group 1: Material Differences:

	ASEN	JCET	CIRTEK
Mount compound	1400238112	120402001600	HNK6NSNC10
Mold compound	1800819111	120903003009	B8240AB16A

Group 2: Material Differences

	ASEN	JCET	CIRTEK
Mount compound	1400230112	120402002600	NMS607CO10
Mold compound	1800819111	120903003009	B8240AB16A

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

Marking Differences:

Device	ASEN	JCET	CIRTEK
TPD4E02B04DQAR	1SY	-	1SG
TPD4E05U06DQAR	BRY	BRG	BLG
TPD4EUSB30DQAR	66V	667	BMR
TPD4S010DQAR	4U7	4U7	BOR
TPD1E04U04DPYR/T	3K	3K	3K
TPD1E05U06DPYR/T	C6	C1	BK
TPD1E10B06DPYR/T	B6	B1	BI
TPD1E10B09DPYR/T	A6	A1	BJ

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 from the TI Eco-Info website. There is no impact to the material meeting current regulatory compliance requirements with this PCN change.

Changes to product identification resulting from this PCN:

Assembly Site		
ASEN	Assembly Site Origin (22L)	ASO: ASN
JCET	Assembly Site Origin (22L)	ASO: JCE
CIRTEK	Assembly Site Origin (22L)	ASO: CTK

Sample product shipping label (not actual product label)

ASSEMBLY SITE CODES: ASEN= J, JCET= F, CIRTEK=W

Product Affected: Group 1

TPD4E02B04DQAR	TPD4E05U06DQAR	TPD4EUSB30DQAR	TPD4S010DQAR

Product Affected: Group 2

TPD1E04U04DPYR	TPD1E05U06DPYR	TPD1E10B06DPYR	TPD1E10B09DPYR
TPD1E04U04DPYT	TPD1E05U06DPYT	TPD1E10B06DPYT	TPD1E10B09DPYT

Group 1 Qualification Report

New Pkg/A-T site: CIRTEK Subcon qual of 10-pin DQA package, several devices

Approve Date 09-Aug-2017

Product Attributes

Attributes	Qual Device: TPD4E02B04DQAR	Qual Device: TPD4E05U06DQAR	Qual Device: TPD4EUSB30DQAR	Qual Device: TPD4S010DQAR
Assembly Site	CIRTEK	CIRTEK	CIRTEK	CIRTEK
Package Family	SON	SON	SON	SON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	CFAB	CFAB	FFAB	FFAB
Wafer Process	VDIODE ULC	VDIODE ULC	50B10.13_BOPO/D9789	50B10.13_BOPO/D9789

- Qual Devices qualified at LEVEL1-260C: TPD4E02B04DQAR, TPD4S010DQAR, TPD4E05U06DQAR, TPD4EUSB30DQAR
- Devices contain multiple dies: TPD4E05U06DQAR, TPD4EUSB30DQAR, TPD4S010DQAR, TPD4E02B04DQAR

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPD4E02B04DQAR	Qual Device: TPD4E05U06DQAR	Qual Device: TPD4EUSB30DQAR	Qual Device: TPD4S010DQAR
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	1/3/0	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	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	-	1/77/0	3/231/0	-
HTOL	Life Test, 125C	1000 Hours	-	1/77/0	3/231/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	3/231/0	3/231/0	-
PD	Physical Dimensions	--	-	-	3/15/0	-
SD	Surface Mount Solderability	Pb Free	-	-	3/66/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	-
WBP	Bond Pull	Wires	-	1/76/0	3/228/0	1/76/0
WBS	Ball Bond Shear	Wires	-	-	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

Group 2 Qualification Report

New Pkg/A-T site: CIRTEK Subcon qual of 2-pin DPY package, several devices

Approve Date 30-Aug-2017

Product Attributes

Attributes	Qual Device: TPD1E04U04DPYR	QBS Package Reference: TPD1E05U06DPYR	QBS Package Reference: TPD1E10B06DPYR	QBS Package Reference: TPD1E10B09DPYR
Assembly Site	CIRTEK	CIRTEK	CIRTEK	CIRTEK
Package Family	SON	SON	SON	SON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0

Wafer Fab Supplier	CFAB	C FAB	C FAB	CFAB
Wafer Process	VDIODE ULC	VDIODE ULC	VDIODE ULC	VDIODE ULC

Attributes	QBS Package Reference: TPD4E02B04DQAR	QBS Package Reference: TPD4E05U06DQAR	QBS Package Reference: TPD4EUSB30DQAR	QBS Package Reference: TPD4S010DQAR
Assembly Site	CIRTEK	CIRTEK	CIRTEK	CIRTEK
Package Family	SON	SON	SON	SON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	CFAB	CFAB	FFAB	FFAB
Wafer Process	VDIODE ULC	VDIODE ULC	50B10.13_BOPO/D9789	50B10.13_BOPO/D9789

- QBS: Qual By Similarity
- Qual Device TPD1E04U04DPYR is qualified at LEVEL1-260C
- Device TPD1E04U04DPYR contains multiple dies.

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPD1E04U04DPYR	QBS Package Reference: TPD1E05U06DPYR	QBS Package Reference: TPD1E10B06DPYR	QBS Package Reference: TPD1E10B09DPYR
AC	Autoclave 121C	96 Hours	-	-	3/231/0	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	1/3/0	1/3/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	Pass	-
FLAM	Flammability (IEC 695-2-2)	--	-	-	-	-
FLAM	Flammability (UL 94V-0)	--	-	-	-	-
FLAM	Flammability (UL-1694)	--	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	1/77/0	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-
HTOL	Life Test, 125C	500 Hours	-	-	1/77/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	3/231/0	-
PD	Physical Dimensions	--	-	-	3/15/0	-
SD	Surface Mount Solderability	Pb-Free	-	-	3/66/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	-
TS	Thermal Shock - 65/150C	500 Cycles	-	-	3/231/0	-
WBP	Bond Pull	Wires	-	-	3/228/0	-
WBS	Ball Bond Shear	Wires	-	-	3/228/0	-

Type	Test Name / Condition	Duration	QBS Package Reference: TPD4E02B04DQAR	QBS Package Reference: TPD4E05U06DQAR	QBS Package Reference: TPD4EUSB30DQAR	QBS Package Reference: TPD4S010DQAR
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0	-
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	1/3/0	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	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	-	1/77/0	3/231/0	-
HTOL	Life Test, 125C	1000 Hours	-	1/77/0	3/231/0	-
HTOL	Life Test, 125C	500 Hours	-	-	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	3/231/0	3/231/0	-
PD	Physical Dimensions	--	-	-	3/15/0	-
SD	Surface Mount Solderability	Pb-Free	-	-	3/66/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	-
TS	Thermal Shock - 65/150C	500 Cycles	-	-	-	-
WBP	Bond Pull	Wires	-	1/76/0	3/228/0	1/76/0
WBS	Ball Bond Shear	Wires	-	-	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
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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