PCN Number:	20170815000	**PCN Date:**	Aug 21, 2017
Title:	Qualification of CIRTEK as an additional Assembly & Test site for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Nov 21, 2017	**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 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**

Material Differences:

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

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

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 at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp

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)

G4

MADE IN: Malaysia
2DC: 2Q:

MSL 2 /260C/1 YEAR	SEAL DT
MSL 1 /235C/UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)TO:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T)LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO:USA
(22L) ASO: MLA (23L) ACO: MYS

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

Product Affected:

TPD4E02B04DQAR	TPD4E05U06DQAR	TPD4EUSB30DQAR	TPD4S010DQAR

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

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
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