

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20230721003.1A Qualification of CDAT as an additional Assembly site for Select Devices Change Notification / Sample Request

Date: December 20, 2023

To: Digi-Key PCN

Revision A is to announce the <u>retraction</u> of select devices.

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.

Texas Instruments requires acknowledgement of receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date 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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

Change Management Team SC Business Services

PCN Number:		2023	307210	003.14	3.1A				PCN Date:	December 20, 2023		
Titl	le:	Qualifica	ation	of CDA	T as a	an a	alternate Assemb	ly site fo	r sel	ect devices		
Cus	stom	er Conta	ct:	Chan	ge Ma	Management Team Dept: Q			Qua	Quality Services		
Proposed 1 st Ship Date: Oct 2					27, 2023 S				imple request accepted unti			
*Sa	*Sample requests received after Aug 27, 2023 will not be supported.											
Cha	Change Type:											
\boxtimes	Asse	embly Site	е				Design			Wafer Bump	Material	
\boxtimes	Asse	embly Pro	cess				Data Sheet			Wafer Bump Process		
Assembly Materials					Part number change			Wafer Fab Site				
☐ Mechanical Specification						Test Site			☐ Wafer Fab Material			
☐ Packing/Shipping/Labeling						☐ Test Process ☐			Wafer Fab Process			
PCN Details												
Des	Description of Change:											

Revision B is to announce the <u>retraction</u> of select devices. These devices will continue to be manufactured as prior and will not be subjected to the change described in this notification. Affected devices are identified with a **strikethrough** and are highlighted in yellow in the Product Affected Section.

Texas Instruments Incorporated is announcing the qualification of CDAT as an additional Assembly site for set of devices listed below. Construction differences are as follows:

	ASEN	CIRTEK	CDAT
Mold Compound	SID#1800819111	SID#B8240AB16A	4222198
Mount Compound	SID#1400238112	SIDHNK6NSNC10	4226215
Bond wire composition, diameter	Au, 0.8 mil	Au, 0.8 mil	Cu, 0.8 mil

Reason for Change:

Supply continuity

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
⊠ No Change	☑ No Change	☑ No Change	☑ No Change

Changes to product identification resulting from this PCN:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City	
ASEN	ASN	CHN	Suzhou	
CIRTEC	СТК	PHL	Binan City	
CDAT	CDA	CHN	Chengdu	

Sample product shipping label (not actual product label)



MADE IN: Malaysia 2DC: 2Q:

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

OPT: ITEM: (L)T0:³⁹750



(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483812

(2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: MYS

Product Affected:

TPD4E02B04DQAR TPD4EUSB30DQAR TPD4S010DQAR ESD204DQAR ESD224DQAR

TI Information Selective Disclosure

Qualification Report

ESD204DQA move to CDAT Approve Date 20-April-2023

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: ESD204DQAR	QBS Reference: TPS2546QRTERQ1	QBS Reference: TPD2E2U06QDCKRQ1	QBS Reference: TPD4E05U06DQAR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	3/231/0	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	3/231/0	-
UHAST	А3	Unbiased HAST	130C/85%RH	96 Hours	3/231/0	-	-	3/231/0
TC	A4	Temperature Cycle	-55C/150C	400 Cycles	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	3/231/0	3/231/0	-	3/231/0
HTSL	A6	High Temperature Storage Life	(Dry bake at 150C)	500 Hours	-	-	3/15/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/135/0	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	3/231/0	-	-	3/231/0
HTOL	B1	High Temperature Reverse Bias	125C	1000 Hours	-	-	3/231/0	-
HTOL	B1	Life Test	125C	1000 Hours	-	3/231/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	1/800/0	-	-
WBS	C1	Ball Shear	76 balls, 3 units min	Wires	3/228/0	-	-	-

WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	3/228/0	-	-	3/228/0
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	1/10/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	1/15/0	1/10/0	-
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	1/22/0	-	-	3/66/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB- Free Solder;	-	1/22/0	-	-	3/66/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	3/15/0	-	-	3/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	3/30/0	1/30/0	-
ESD	E2	ESD CDM	-	1500 Volts	1/3/0	-	1/10/0	4/12/0
ESD	E2	ESD CDM	-	500 Volts	-	1/3/0	-	-
ESD	E2	ESD HBM	-	10000 Volts	-	-	1/10/0	-
ESD	E2	ESD HBM	-	2000 Volts	-	1/3/0	-	-
ESD	E2	ESD HBM	-	6000 Volts	-	-	1/10/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/6/0	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	-	-	1/30/0
	E5	Electrical Distributions	Cpk>1.67 Room, hot,	_	_	3/90/0	-	_

CHAR	E5	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	-	-	3/75/0	-
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- QBS: Qual By Similarity
- Qual Device ESD204DQAR is qualified at MSL1 260C
- 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
- $\bullet \quad \text{The following are equivalent HTSL options based on an activation energy of 0.7eV: } 150\text{C/1k Hours, and } 170\text{C/420 Hours}$
- 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

TI Qualification ID: R-CHG-2112-039

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

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