

PCN# 20190116000.1 Qualification of ASEN as Additional Assembly and Test Site for Select WSON Package Devices Change Notification / Sample Request

Date:February 01, 2019To: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 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 (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

PCN Team SC Business Services

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
CSD16301Q2	null
CSD17313Q2T	null
CSD85301Q2T	null
CSD87502Q2T	null
CSD17313Q2	null

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

PCN Number: 20190116000.1 PCN Date: Feb. 1, 2019						Feb. 1, 2019			
Title: Qualification of ASEN as Additional Assembly and Test Site for Select WSON Package Devices									
Customer Contact: PCN Manager Dept: Quality Services									
Proposed 1st Ship Date:May 1, 2019Estimated Sample Availability:Date Provided at request				d at Sample					
Change T	Change Type:								
Asse	mbly Site				Design		Wafer Bump Site		
Assembly Process			Data Sheet		Wafer Bump Material				
Assembly Materials				Part r	number ch	nange	Wafer Bum	p Process	
Mechanical Specification			\boxtimes	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 of ASEN as 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
UNIAT	UNM	MY	lpoh
ASEN	ASN	CN	Suzhou

Material Differences: Group 1 Device:

	UNIAT	ASEN
Mount Compound	47000011	1400410101
Mold Compound	47160091	1800558151
Wire Type	Au	Cu
Lead finish	Matte Sn	NiPdAu

Group 2 Device:

	UNIAT	ASEN
Mount Compound	47000011	1400410101
Mold Compound	47160155	1800558151
Lead finish	Matte Sn	NiPdAu

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 from the TLEco-Info website. There is no impact to the		
			obtained from the <u>TI Eco-Info website</u> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.		
Cha	Changes to product identification resulting from this PCN:				

Changes to product identification resulting from this PCN:

UNIAT		Assembly Site Origin (22L) ASO: UNM				
ASEN		Assembly Site Origin (22L) ASO: ASN				
Sample product sh TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 20: MSL 2 /260C/1 YEA MSL 1 /235C/UNLIN OPT: ITEM: LBL: 5A (L)	G4 AR SEAL DT 1 03/29/04	ot actual produ	(1P) SN74LS (Q) 2000 (31T)LOT: 3 (4W) TKY(1T (P) (2P) REV: (20L) CSO: SHE	07NSR (D) 0336 959047MLA) 7523483S12 (V) 0033317 (21L) CCO:USA (23L) ACO: MYS		
Product Affected	Group 1:					
	Group 1: CSD173130	22 C	SD17313Q2T			
Product Affected	CSD173130	22 C	SD17313Q2T			

Qualification Report

Q2 Package offload to ASEN - Phase 2 Dual die Approved Date 12-Dec-2018

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: <u>CSD85301Q2</u>	Qual Device: <u>CSD87502Q2</u>	Qual Device: <u>CSD58902Q2</u>	Qual Device: <u>CSD87502Q2</u>	
HTGB	High Temp. Gate Bias, 150C	1000 Hours	-	-	1/77/0	1/77/0	
HTRB	High Temp. Reverse Bias, 150C	1000 Hours	-	-	1/77/0	1/77/0	
IOL	IOL 2min Cycle	10000 Cycles	-	3/231/0	-	-	
AC	Autoclave 121C	96 Hours	-	3/231/0	-	-	
HBM	ESD - HBM	400 V	-	-	1/3/0	-	
CDM	ESD - CDM	2000 V	-	-	1/3/0	-	
PD	Physical Dimensions	(per mechanical drawing)	-	3/30/0	-	-	
SD	Solderability	8 Hours Steam Age, Pb-Free	-	-	3/30/0	-	
TC	Temperature Cycle, -55/125C	700 Cycles	-	3/231/0	-	-	
тнв	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	3/231/0	-	-	
WBP	Bond Pull	76 Wires, 5units min	-	3/228/0	-	-	
WBS	Ball Bond Shear	76 balls, 5 units min	-	3/228/0	-	-	
YLD	FTY and Bin Summary	-	1/Pass	3/Pass	-	-	

- 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

THIS INFORMATION RELATING TO QUALITY AND RELIABILITY IS PROVIDED "AS IS." Product information detailed in this report may not accurately reflect TI's current product materials, processes and testing used in the construction of the TI products. Customers are solely responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications. Using TI products outside limits stated in TI's datasheet may void TI's warranty. See TI's Terms of Sale at "http://www.ti.com/lsds/ti/legal/termsofsale.page"

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