

PCN Number:	20171017001		PCN Date:	Oct 23, 2017												
Title:	Qualification of ASEN as an additional Assembly & Test site for select devices															
Customer Contact:	PCN Manager	Dept:	Quality Services													
Proposed 1st Ship Date:	Jan 23, 2018	Estimated Sample Availability:	Date Provided at Sample request													
Change Type:																
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site											
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material											
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process											
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site											
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials											
				<input type="checkbox"/>	Wafer Fab Process											
PCN Details																
Description of Change:																
Texas Instruments Incorporated is announcing the qualification ASEN 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.																
<table border="1"> <thead> <tr> <th>Assembly Site</th> <th>Assembly Site Origin</th> <th>Assembly Country Code</th> <th>Assembly Site City</th> </tr> </thead> <tbody> <tr> <td>UNIAT</td> <td>UNM</td> <td>MYS</td> <td>Ipoh</td> </tr> <tr> <td>ASEN</td> <td>ASN</td> <td>CHN</td> <td>Suzhou</td> </tr> </tbody> </table>					Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City	UNIAT	UNM	MYS	Ipoh	ASEN	ASN	CHN	Suzhou
Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City													
UNIAT	UNM	MYS	Ipoh													
ASEN	ASN	CHN	Suzhou													
Material Differences:																
	UNIAT	ASEN														
Lead Finish	Matte Sn	NiPdAu														
Mount compound	47000011	1400410101														
Mold compound	47160155	1800558151														
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																
<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 at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp													
Changes to product identification resulting from this PCN:																
<table border="1"> <thead> <tr> <th colspan="3">Assembly Site</th> </tr> </thead> <tbody> <tr> <td>UNIAT</td> <td>Assembly Site Origin (22L)</td> <td>ASO: UNM</td> </tr> <tr> <td>ASEN</td> <td>Assembly Site Origin (22L)</td> <td>ASO: ASN</td> </tr> </tbody> </table>					Assembly Site			UNIAT	Assembly Site Origin (22L)	ASO: UNM	ASEN	Assembly Site Origin (22L)	ASO: ASN			
Assembly Site																
UNIAT	Assembly Site Origin (22L)	ASO: UNM														
ASEN	Assembly Site Origin (22L)	ASO: ASN														

Sample product shipping label (not actual product label)

TEXAS
INSTRUMENTS

MADE IN: Malaysia
2DC: 2Q:

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

OPT:
ITEM:

LBL: 5A (L)T0:1750



(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: UNIAT= H, ASEN=J

Product Affected:

CSD13202Q2	CSD17571Q2	CSD19538Q2T	CSD25310Q2T
CSD15571Q2	CSD19538Q2	CSD25310Q2	

Qualification Report

Q2 Package Offload to ASEN

Approve Date 03-Oct-2017

Product Attributes

Attributes	Qual Device: CSD13202Q2 ASEN	QBS Package Reference: CSD13202Q2 UNIAT	QBS Package Reference: CSD58911Q2
Assembly Site	ASEN	UNIAT	ASEN
Package Family	WSON	QFN/SON	QFN/SON
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	UMC	CFAB	CFAB
Wafer Process	NEXFET GEN 1.3	NEXFET GEN 1.3	NEXFET GEN1.4

- QBS: Qual By Similarity
- Qual Device CSD13202Q2 is qualified at LEVEL1-260C

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: CSD13202Q2	QBS Package Reference: CSD13202Q2 UNIAT	QBS Package Reference: CSD58911Q2 ASEN
HBM	ESD - HBM	350 V	-	1/3/0	-
CDM	ESD - CDM	1500 V	-	1/3/0	-
IOL	Intermittent Operating Life	10000 Cycles	-	3/231/0	3/231/0
HTGB	High Temp. Gate Bias, 150C (80% Vgs)	1000 Hours	-	3/231/0	-
HTRB	High Temp. Reverse Bias,	1000	-	3/231/0	-

	150C (80% Vds)	Hours			
SD	Solderability	Pb-Free	-	-	3/15/0
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	3/231/0	3/231/0
THB	Biased Temperature and Humidity, 85C/85%RH	1000 Hours	-	3/231/0	3/231/0
AC	Autoclave 121C	96 Hours	-	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
YLD	FTY and BIN Summary	-	Pass	Pass	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

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