

PCN Number:	20190728000.1		PCN Date:	Aug 2, 2019	
Title:	Qualification of additional AT/Bump site and bump structure for select WCSP devices				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	Nov. 2 2019	Estimated Sample Availability:	Date provided at sample request		
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input checked="" type="checkbox"/>	Wafer Bump Site
<input checked="" 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 type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input 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 is pleased to announce the qualification JCAP as additional assembly and bump site for the devices listed in the product affected section below. There are slight construction differences between the current TIEM and additional JCAP bump sites as follows:					
		TIEM	JCAP		
	Die Coat	BCB	PI		
	Backside coating	8074216	SID#MB35003320		
	Die Thickness (LM3642TLE(x)/NOPB devices only)	304.8um	325um		
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 from the TI ECO website .		
Changes to product identification resulting from this PCN:					
Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City		
TIEM	CU6	MYS	Melaka		
JCAP	JCP	CHN	Jiangyin		
Sample product shipping label (not actual product label)					



MADE IN: Malaysia
ZDC: 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

Product Affected:

LM3642TLE/NOPB	LP8556TME-E05/NOPB	LP8556TMX-E02/NOPB	LP8556TMX-E06/NOPB
LM3642TLX/NOPB	LP8556TME-E06/NOPB	LP8556TMX-E03/NOPB	LP8556TMX-E07/NOPB
LP8556TME-E02/NOPB	LP8556TME-E07/NOPB	LP8556TMX-E04/NOPB	LP8556TMX-E09/NOPB
LP8556TME-E03/NOPB	LP8556TME-E09/NOPB	LP8556TMX-E05/NOPB	LP8556TMX-E11/NOPB
LP8556TME-E04/NOPB	LP8556TME-E11/NOPB		



TI Information
Selective Disclosures

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LM3642TLX/NOPB	Qual Device: LP8556TMX-E02/NOPB LP8556TMX-E11/NOPB	QBS Product Reference: LM3642TLX/NOPB	QBS Product Reference: LP8556TMX- E09/S1	QBS Package Reference: LM8566A0YFQR
ED	Electrical Characterization	(Per Datasheet Parameters)	-	-	1/30/0	-	3/90/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-	3/913/0	3/3000/0
HBM	ESD - HBM	1000 V	-	-	1/3/0	1/3/0	3/9/0
HBM	ESD - HBM	2500 V	-	-	1/30	1/3/0	3/9/0
CDM	ESD - CDM	1000 V	-	-	1/30	1/3/0	3/9/0
CDM	ESD - CDM	1500 V	-	-	1/3/0	-	3/9/0
LU	Latch-up	(per JESD78) 25C	-	-	1/6/0	1/6/0	3/18/0
LU	Latch-up	(per JESD78) 85C	-	-	1/6/0	1/6/0	3/18/0
LU	Latch-up	(per JESD78) 125C	-	-	1/6/0	-	3/18/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	2/154/0	3/231/0
HAST	Biased HAST, 110C/85%RH	264 Hours	-	-	-	1/77/0	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	3/228/0	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	-	1/77/0	2/154/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	3/231/0	-
TC	Temperature Cycle, -55/150C	700 Cycles	-	-	-	-	3/231/0
uHAST	unBiased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	-
MQ	Manufacturability (Assembly)	(Per Mfg. Site Specification)	1/Pass	2/Pass	-	-	-

- QBS: Qual By Similarity
- Qual Device LP8556TMX-E02/NOPB, LP8556TMX-E11/NOPB is qualified at LEVEL1-260Co LP8556 Total 16 devices. 2 Dice G4LP8556A3XXX: LP8556TMX-E02/NOPB, LP8556TMX-E03/NOPB, LP8556TMX-E04/NOPB, LP8556TMX-E05/NOPB, LP8556TMX-E06/NOPB, LP8556TMX-E07/NOPB, LP8556TMX-E09/S1, LP8556TMX-E11/NOPB, LP8556TME-E02/NOPB, LP8556TME-E03/NOPB, LP8556TME-E04/NOPB, LP8556TME-E05/NOPB, LP8556TME-E06/NOPB, LP8556TME-E09/NOPB, LP8556TME-E11/NOPB

- Qual Device LM3642TLX/NOPB is qualified at LEVEL1-260C o LM3642 Total 2 devices: 1 Die G4LM3642AM: LM3642TLX/NOPB, LM3642TLE/NOPB

- 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

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