

PCN Number:	20230331000.1		PCN Date:	March 31, 2023	
Title:	Qualification of additional Fab site (RFAB) and add Cu as alternative Wire Base Metal for Selected Device(s)				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	June 30, 2023		Sample requests accepted until:	Apr 30, 2023*	
*Sample requests received after Apr 30, 2023 will not be supported.					
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input checked="" type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input checked="" type="checkbox"/>	Wafer Fab Materials
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
Texas Instruments is pleased to announce the qualification of an additional fab (RFAB) and add Cu as alternative Wire Base Metal for selected devices as listed below in the product affected section.					
Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
DMOS5	LBC7	200 mm	RFAB	LBC7	300 mm
Construction differences are as follows:					
		Current	Proposed		
Bond wire composition		0.96mil Au	1.0 mil Cu		
Qual details are provided in the Qual Data Section.					
Reason for Change:					
Continuity of Supply					
1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties					
2) Maximize flexibility within our Assembly/Test production sites.					
3) Cu is easier to obtain and stock					
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	
<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change	
IEC 62474					
<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change			

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
D MOS5	DM5	USA	Dallas
RFAB	RFB	USA	Richardson

Sample product shipping label (not actual product label)




MADE IN: Malaysia
2DC: 20:

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

OPT: 39
ITEM: LBL: 5A (L)T0:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483S12
(P)
(2P) REV: (V) 0033817
(20L) CS0: SHE (21L) CCO: USA
(22L) ASO: MLA (23L) ACO: MYS

Group 1 Product Affected: (Wafer Fab + Cu wire)

UCC28951PWR	UCC28951PWT
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Group 2 Product Affected: (Cu wire only)

UCC28950PW	UCC28950PWR
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Qualification Report

Approve Date 15-Mar-2023

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: UCC28950PWR	Qual Device: UCC28951PWR	QBS Process Reference: SN3257QDYRQ1	QBS Package Reference: ADS1230IPW	QBS Package Reference: TH57303PW	QBS Process Reference: BQ51013BQWRHLRQ1	QBS Process Reference: TPS3702EX33QDCRQ1	QBS Product/Process Reference: UCC28951QPWRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	-	3/231/0	3/231/0	1/77/0
UHAST	A3	Autoclave	121C/15psig	384 Hours	-	-	-	3/231/0	3/231/0	-	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	1/77/0	3/231/0	-	-	3/231/0	3/231/0	1/77/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	1/77/0	3/231/0	3/231/0	3/231/0	3/231/0	3/231/0	1/77/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	3/135/0	-	-	1/77/0	-	1/45/0
HTSL	A6	High Temperature Storage Life	170C	1000 Hours	-	-	-	-	3/231/0	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	-	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	-	3/231/0	3/231/0	1/77/0
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	3/2400/0	-	-	-	-	-

WBP	C2	Bond Pull	76 Wires, 3 units min	Wires	-	1/76/0	-	-	-	-	-	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-	-	1/15/0	2/30/0	1/15/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	1/15/0	-	-	1/15/0	2/30/0	1/15/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	-	-	3/30/0	3/30/0	3/30/0
ESD	E2	ESD CDM	-	1500 Volts	-	1/3/0	-	-	-	-	-	-
ESD	E2	ESD HBM	-	4000 Volts	-	1/3/0	-	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	1/6/0	-	-	1/6/0	1/6/0	1/6/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	-	1/30/0	3/90/0	-	-	3/90/0	3/90/0	3/90/0
FTY	E6	Final Test Yield	-	-	-	1/1/0	-	-	-	-	-	-
SAM		SAM Post Temperature Cycle	-	-	-	1/12/0	-	-	-	-	-	-

QBS: Qual By Similarity

Qual Device UCC28950PWR is qualified at MSL1 260C

Qual Device UCC28951PWR is qualified at MSL2 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

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 contact below or your local Field Sales Representative.

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com

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