PCN Number:	20220202	2000.1			РС	N Date:	February 16, 2022
Title: Qualification of TI Malaysia as an alternate Assembly site for select devices							
Customer Contact: PCN Manager Dept: Quality Services							
Proposed 1 st Ship Date: May 1		May 17,	2022	22 Estimated S Avail		bility: Date provided at sample request	
Change Type:							
Assembly Sit			Design Wafer Bump Site				
Assembly Pro			Data S			Wafer Bump Material	
Assembly Ma				Part number change		Wafer Bump Process	
Mechanical S				Test Site		Wafer Fab Site	
Packing/Ship	ping/Label	ing	Test Pr	rocess		Wafer Fab Materials	
						Wafer Fab Process	
			PCN	Details			
Description of C	hange:						
Assembly & Final	Texas Instruments Incorporated is announcing the qualification of TI Malaysia as an additional Assembly & Final site for the devices listed below. There are no construction differences between the 2 sites.						
Reason for Cha	nae:						
Supply continuity	-						
Anticipated imp	act on Fo	r <mark>m, Fit, F</mark>	unction	, Quality or Relial	oility (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		REA	СН	Green Stat	us	IE	C 62474
🛛 No Change	\square	🛛 No Change		🛛 No Change		🛛 No C	Change
Changes to proc	luct ident	ification	resultin	g from this PCN:			
Assembly Site				ssembly Country Code	e (23L)	As	sembly City
TI Taiwan TAI			()	TWN			Ho, New Taipei City
TI Malaysia MLA		MLA		MYS		Kua	ala Lumpur
Sample product shipping label (not actual product label)							

Product Affected:				
AMC1204BDW	ISO7760DWR	ISO7762FDW	UCC21540DWR	
AMC1204BDWR	ISO7760FDW	ISO7762FDWR	UCC21541DW	
AMC1204DW	ISO7760FDWR	UCC21540ADWR	UCC21541DWR	
AMC1204DWR	ISO7762DW	UCC21540DW	UCC21542DWR	
ISO7760DW	ISO7762DWR			



TI Information Selective Disclosure

Туре	Test Name / Condition	Duration	Qual Device: AMC1204QDWRQ1	QBS Product Reference: AMC1204QDWRQ1	QBS Process Reference: AMC1200STDUBRQ1	QBS Package Reference AMC1305M25QDWRQ1
AC	Autoclave 121C	96 Hours	1/80/0	3/231/0	3/231/0	3/231/0
CDM	ESD - CDM	1500 V	-	1/3/0	1/3/0	1/3/0
ED	Electrical Distribution	Cpk>1.67	1/30/0	3/90/0	3/90/0	1/30/0
ELFR	Early Life Failure Rate, 125C	24 Hours	-	3/2400/0	3/840/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	1/77/0	3/231/0	3/231/0	3/231/0
HBM	ESD - HBM	4000 V	-	1/3/0	-	1/3/0
HTOL	Life Test, 150C	300 Hours	-	-	3/231/0	-
HTOL	Life Test, 150C	408 Hours	1/77/0	3/231/0	-	1/77/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	3/231/0	-
HTSL	High Temp Storage Bake 175C	500 Hours	1/45/0	1/77/0	-	3/231/0
LI	Lead Pull to Destruction	Leads	-	1/24/0	1/24/0	1/24/0
LU	Latch-up	Per AEC- Q100-004	-	1/6/0	-	1/6/0
PD	Physical Dimensions	Cpk>1.67	1/30/0	3/30/0	3/30/0	3/30/0
SD	Solderability	Pb	1/15/0	1/15/0	3/36/0	1/15/0
SD	Solderability	Pb Free	1/15/0	1/15/0	3/36/0	1/15/0
тс	Temperature Cycle, - 65/150C	500 Cycles	1/77/0	3/231/0	3/231/0	3/231/0
WBP	Bond Pull, Cpk>1.67	Wires	1/30/0	3/90/0	3/228/0	3/90/0
WBS	Wire Bond Shear, Cpk>1.67	Wires	1/30/0	3/90/0	3/228/0	3/90/0
Qual Dev Device Al Precondit The follov The follov The follov uality and	ving are equivalent HTOL o ving are equivalent HTSL o ving are equivalent Temp C	multiple dies. utoclave, Unbias ptions based on a ptions based on a ycle options per	ed HAST, THB/Biased HAST, Temp			



Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: ISO7760DW	Qual Device: ISO7760FDW	QBS Package Reference: ISO6741QDWRQ1
AC	Autoclave 121C	96 Hours	1/77/0	-	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
HTOL	Life Test, 125C	1000 Hours	-	-	3/231/0
HTSL	High Temp Storage Bake 175C	500 Hours	-	-	3/135/0
SD	Surface Mount Solderability	PB Solder	-	-	1/15/0
SD	Surface Mount Solderability	PB-Free Solder	-	-	1/15/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	-	3/231/0
WBP	Bond Pull	Wires	1/76/0	1/76/0	3/228/0
WBS	Ball Bond Shear	Wires	1/76/0	1/76/0	3/228/0

- QBS: Qual By Similarity

- Qual Devices ISO7760FDW and ISO7760DW are qualified at LEVEL2-260C

- Devices ISO7760DW and ISO7760FDW contains multiple dies.

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

TI Qualification ID: 20210106-137645



TI Information Selective Disclosure

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

Туре	Test Name / Condition	Duration	Qual Device: <u>UCC21540DWR</u>
AC	Autoclave 121C	96 Hours	1/77/0
CDM	ESD - CDM	1500 V	1/3/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0
HBM	ESD - HBM	4000 V	1/3/0
HTOL	Life Test, 125C	1000 Hours	1/77/0
LU	Latch-up	(per JESD78)	1/6/0
MSL	Thermal Path Integrity, JEDEC, L2	Level 2-260C	1/12/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0
YLD	Yield Evaluation	(per mfg. Site specification)	1/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

TI Qualification ID: 20210226-138824

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