

PCN Number:	20200327001.1		PCN Date:	April 15, 2020	
Title:	Die Sale additional site qualification - Micross				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	July 15, 2020		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 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 Incorporated is announcing the qualification of Micross as an alternate site for devices sold in die format (Packing - Waffle pack, gel-pack, TnR, Film Frame) currently assembled at TI Clark.					
Reason for Change:					
Business Continuity					
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):					
None					
Changes to product identification resulting from this PCN:					
The product box label site origin codes will change as described below:					
Current					
Assembly Site	Assy site code (22L)	Assy country code (23L)			
Clark A/T	QAB	PHL			
New					
Assembly Site	Assy site code (22L)	Assy country code (23L)			
MICROSS	DAL	USA			
Example sample product shipping label (not actual product label):					

TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 2Q:



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SRE (21L) CCO: USA
(22L) ASO: MLA (23L) ACO: MYS

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

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

Product Affected:

5962-1222401Q9A	DAC0800 MDC	LM120KG-15 MD8	MPD23726MKGD1V
5962-1222402V9A	DAC121S101 MDP	LM120KG-5 MD8	MPD23756KGD1
5962-8670410V9A	DAC121S101 MDR	LM124 MD8	MPD23799KGD
5962-8680603V9A	DAC121S101-MDE	LM124 MDE	MPD23800KGD
5962-9673802V9B	DP83848SKGD1	LM124 MDR	MPVRUC1525B-D
5962-9950403V9B	DP83848SKGD2	LM124A-MD8	MPVUC1845A-D
5962F0254701V9A	DS16F95 MDA	LM134 MDC	MPVUC1901-D
5962F9560401V9A	DS16F95 MDR	LM136-2.5 MD8	MSP430F2619S64KGD1
5962L0620602V9A	DS26C32A MD8	LM136-2.5 MDE	MSP430F2619SKGD1
5962L1620901V9A	DS26LV32-MD8	LM136-2.5 MDR	OMAPL137BHKGD1
5962R0050101V9A	DS90C031 MDR	LM136-2.5 MDS	OPA211SKGD1
5962R0050102V9A	DS90C032 MDR	LM137H MD8	OPA2333SKGD1
5962R0722701V9A	DS90C032-MD8	LM137HVK MD8	OPA2333SKGD2
5962R0722901V9A	DS90C032A-MD8	LM137KG MD8	OPA2348CKGD1
5962R0722961V9A	DS90LV019 MDC	LM138KG-MD8	OPA2348CKGD2
5962R1022101V9A	INA129SKGD1	LM139 MD8	OPA657TD1
5962R1222403V9A	INA129SKGD2	LM139 MDE	OPA657TD2
5962R1320202V9A	INA271SKGD1	LM139 MDR	OPA820SKGD3
5962R8754903V9A	INA271SKGD2	LM140KG-12 MD8	OPA857TD1
5962R8771002V9A	INA333SKGD1	LM140KG-5 MD8	OPA857TD2
5962R8771003V9A	INA333SKGD2	LM148 MD8	REF5025SKGD1
5962R8958702V9A	LF147-MD8	LM158 MD8	REF5025SKGD2
5962R9166702V9A	LF156 MD8	LM158A MDE	SM28VLT32SKGD2
5962R9452602V9A	LF398 MDC	LM158A MDR	SM28VLT32SKGD3
5962R9452603V9A	LF412 MD8	LM185-1.2-MD8	SM320F2812KGDS150A
5962R9560403V9A	LM101 MDR	LM185-2.5 MD8	SM320F28335KGDS1
5962R9673801V9A	LM101A MD8	LM193 MD8	SM470R1B1MKGDS1
5962R9673802V9A	LM1086-ADJ MDC	LM193 MDE	SN65HVD1040SKGD3
5962R9679801V9A	LM111 MD8	LM193 MDR	SN65HVD11SKGDA
5962R9679802V9A	LM111-MDE	LM2901-MDA	SN65HVD233SKGDA
5962R9950401V9A	LM117H MD8	LM2940-5.0 MDE	THS4521SKGD1
5962R9950402V9A	LM117H MDE	LM2941 MDE	THS4521SKGD2
5962R9951703V9A	LM117H MDR	LM2941-MD8	TPS40200SKGD1
5962R9951705V9A	LM117HVH MDE	LM2991 MD8	TPS40210SKGD1
ADC128S102 MDP	LM117HVH MDR	LM6172 MDR	TPS62000SKGD1
ADC128S102 MDR	LM117HVKG MD8	LM6172-MDE	TPS76901SKGD1

ADS1243SKGD1	LM117KG MD8	LMC6044-MDC	TPS76901SKGD2
ADS1278SKGDA	LM118 MD8	LMC6081-MDA	TPS7A4501MKGD1
ADS1282SKGDA	LM119 MD8	LMC6462B-MDC	TPS7H1201SKGD1
ADS6142SKGD1	LM119 MDE	LMH6715-MDR	UC1525BVRTD1
ADS8320SKGD1	LM119 MDR	LMP2012 MDE	UC1843MKGD1
ADS8320SKGD2	LM120KG-12 MD8	LT1009MKGD1	

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: ONET8551YS4	Qual Device: ONET8551YS9	QBS Product: ONET8551TRGT	QBS Process: ONET9901PARGP
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0
AC	Autoclave, 121C	96 Hours	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	3/231/0
HTSL	High-Temp Storage, 170C	420 Hours	-	-	-	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	3/231/0
HTOL	Life Test, 155C	300 Hours	-	-	-	3/231/0
HBM	ESD - HBM	500 V (Input Pin Only)	-	-	1/3/0	-
HBM	ESD - HBM	3000 V (Excluding Input Pin)	-	-	1/3/0	-
CDM	ESD - CDM	1500 V	-	-	1/3/0	3/9/0
LU	Latch-up.	(Per JESD78)	-	-	1/6/0	3/15/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	Pass	Pass
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	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

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: OPA512SM	Qual Device: OPA541BM
MQ	Manufacturability	(per mfg. Site specification)	Pass	Pass
YLD	Final Test Yield	Per datasheet specifications	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

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Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

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