

PCN Number:	20211130001.2		PCN Date:	December 17, 2021									
Title:	Qualify New Assembly Material set for Selected Device(s)												
Customer Contact:	PCN Manager	Dept:	Quality Services										
Proposed 1st Ship Date:	June 17, 2022	Estimated Sample Availability:	Date provided at sample request										
Change Type:													
<input 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 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"/>		<input type="checkbox"/>	Wafer Fab Process								
PCN Details													
Description of Change:													
Texas Instruments is pleased to announce the qualification of new assembly material for devices listed in "Product affected" section below. Devices will remain in current assembly facility and piece part changes as follows:													
<table border="1"> <thead> <tr> <th>Material</th> <th>Current</th> <th>Proposed</th> </tr> </thead> <tbody> <tr> <td>Mold compound</td> <td>4205694</td> <td>4211880</td> </tr> <tr> <td>Leadframe</td> <td>Non-roughened</td> <td>Roughened (single side)</td> </tr> </tbody> </table>					Material	Current	Proposed	Mold compound	4205694	4211880	Leadframe	Non-roughened	Roughened (single side)
Material	Current	Proposed											
Mold compound	4205694	4211880											
Leadframe	Non-roughened	Roughened (single side)											
Reason for Change:													
Continuity of supply													
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	IEC 62474										
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change										
Changes to product identification resulting from this PCN:													
None													
Product Affected:													
CD74HC08QM96EP	SN74AHCT14MDREP	V62/03605-01XE	V62/04661-01XE										
CD74HC40103QM96EP	SN74AHCT32MDREP	V62/03646-01YE	V62/04669-01XE										
CD74HC4017QM96EP	SN74AHCT74MDREP	V62/03647-01YE	V62/04669-02XE										
SN74AC04MDREP	SN74ALVC00IDREP	V62/03648-01YE	V62/04670-01XE										
SN74AC08MDREP	SN74ALVC08IDREP	V62/03651-01YE	V62/04670-02XE										
SN74AC32MDREP	SN74HC10QDREP	V62/03652-01YE	V62/04683-01XE										
SN74AC74MDREP	SN74HC166AIDREP	V62/03653-01YE	V62/04684-01XE										
SN74ACT04IDREP	SN74HC253QDREP	V62/03654-01YE	V62/04685-01XE										
SN74ACT08IDREP	SN74HCT04IDREP	V62/03655-01YE	V62/04686-01XE										
SN74ACT74MDREP	SN74LVC00AQDREP	V62/03656-01YE	V62/04688-01XE										
SN74AHC00MDREP	SN74LVC04AQDREP	V62/03658-01YE	V62/04690-01XE										

SN74AHC04MDREP	SN74LVC06AMDREP	V62/03659-01YE	V62/04697-01XE
SN74AHC08MDREP	SN74LVC08AMDREP	V62/04614-01XE	V62/04699-01XE
SN74AHC123AMDREP	SN74LVC08AQDREP	V62/04615-01XE	V62/04702-01XE
SN74AHC123AMDREPG4	SN74LVC125AMDREP	V62/04616-01XE	V62/04703-01XE
SN74AHC125MDREP	SN74LVC138AQDREP	V62/04617-01XE	V62/04704-01XE
SN74AHC14MDREP	SN74LVC14AQDREP	V62/04652-01XE	V62/04725-01XE
SN74AHC32MDREP	SN74LVC157AQDREP	V62/04653-01XE	V62/04758-01XE
SN74AHC74MDREP	SN74LVC32AQDREP	V62/04655-01XE	V62/04759-01XE
SN74AHCT00MDREP	SN74LVC74AMDREP	V62/04655-02XE	V62/06661-01XE
SN74AHCT08MDREP	SN74LVC74AQDREP	V62/04656-02YE	V62/06665-01XE
SN74AHCT125QDREP	SN74LVC86AMDREP	V62/04657-01XE	
SN74AHCT126QDREP	SN74LVC86AQDREP	V62/04658-01XE	
SN74AHCT138MDREP	V62/03604-01XE	V62/04659-01XE	



Qualification Report

Approved 7/15/2021

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>CD74HC40103QM96EP</u>	Qual Device: <u>SN74HC244MDWREP</u>	QBS Package Reference: <u>1M16374QDLREP</u>	QBS Package Reference: <u>1R16214CDL</u>	QBS Package Reference: <u>SN75976A1DL</u>	QBS Package Reference: <u>ULN2003ADR</u>
MSL	Moisture Sensitivity, JEDEC	Level 1-260C	3/45/0	2/30/0	3/36/0	3/36/0	-	-
MSL	Moisture Sensitivity, JEDEC	Level 2-260C	-	-	-	-	3/36/0	-
ED	Electrical Characterization, side by side	-	-	-	Pass	Pass	Pass	-
AC	Autoclave 121C	96 Hours	-	-	3/231/0	3/231/0	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	1/77/0
HAST	Biased HAST, 130C/85%RH	192 Hours	-	-	-	-	-	1/77/0
HAST	Biased HAST, 130C/85%RH	288 Hours	-	-	-	-	-	1/77/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	3/231/0	-	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0	-

- QBS: Qual By Similarity
- Qual Device CD74HC40103QM96EP is qualified at LEVEL1-260CG
- Qual Device SN74LVT8980AIDWREP is qualified at LEVEL1-260CG
- Qual Device SN74HC244MDWREP is qualified at LEVEL1-260CG

- 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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