

PCN Number:	20190524000.1	PCN Date:	May 24, 2019						
Title:	Qualify New Assembly Material set for Selected Device(s)								
Customer Contact:	PCN Manager	Dept:	Quality Services						
Proposed 1st Ship Date:	Aug 24, 2019	Estimated Sample Availability:	Date provided at sample request						
Change Type:									
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design						
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet						
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change						
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site						
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process						
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Site						
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material						
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process						
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site						
<input type="checkbox"/>		<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 set 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>4209640</td> <td>4221499</td> </tr> </tbody> </table>				Material	Current	Proposed	Mold compound	4209640	4221499
Material	Current	Proposed							
Mold compound	4209640	4221499							
Reason for Change:									
Continuity of supply. VDE certification expiring by December 2019 for the current mold compound material.									
Anticipated impact on Fit, Form, 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-Info website . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.						
Changes to product identification resulting from this PCN:									
None.									
Product Affected:									
AMC1204BDW	AMC1204BDWR	AMC1204DW	AMC1204DWR						

Qualification Report

Approve Date 17-May-2019

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: AMC1204QDWRQ1
PC	Automotive Preconditioning Level 3	Level 3-260C	3/960/0
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
TC-WBP	Auto Post TC Bond Pull	Wires	1/30/0
HTSL	High Temp Storage Bake 175C	500 Hours	1/77/0
ED	Auto Electrical Distributions	Cpk>1.67	3/90/0
HTOL	Life Test, 150C	408 Hours	3/231/0
HBM	ESD - HBM - Q100	4000 V	1/3/0
CDM	ESD - CDM - Q100	1500 V	1/3/0
LU	Latch-up	Per AEC-Q100-004	1/6/0
PD	Auto Physical Dimensions	Cpk>1.67	3/30/0
SD	Surface Mount Solderability	Pb	1/15/0
SD	Surface Mount Solderability	Pb Free	1/15/0
LI	Lead Pull	Leads	1/24/0
MQ	Manufacturability (Auto Assembly)	(per automotive requirements)	Pass
WBP	Auto Wire Bond Pull	Wires	3/90/0
WBS	Auto Wire Bond Shear	Wires	3/90/0

- QBS: Qual By Similarity
- Qual Device AMC1204QDWRQ1 is qualified at LEVEL3-260C
- Device AMC1204QDWRQ1 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

THIS INFORMATION RELATING TO QUALITY AND RELIABILITY IS PROVIDED "AS IS." Product information detailed in this report may not accurately reflect TI's current product materials, processes and testing used in the construction of the TI products. Customers are solely responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications. Using TI products outside limits stated in TI's datasheet may void TI's warranty. See TI's Terms of Sale at "<http://www.ti.com/lstds/ti/legal/termsofsale.page>"

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