

PCN# 20190524000.1 Qualify New Assembly Material set for Selected Device(s) Change Notification / Sample Request

Date: May 24, 2019 To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The proposed first ship date is indicated on page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

PCN Team SC Business Services

20190524000 Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE

AMC1204BDWR

CUSTOMER PART NUMBER

Technical details of this Product Change follow on the next page(s).

PCN Number:	20190524000.1			PCN Date:	May 24, 2019		
Title: Qualify New Assembly Material set for Selected Device(s)							
Customer Contact:	tomer Contact: PCN Manager Dept			Dept:	Quality Services		
Proposed 1 st Ship Dat		g 24, 2019		ted Sample	Date provided at		
		921,2019	Availal	oility:	sample request		
Change Type:							
Assembly Site		Design Data Sheet			Wafer Bump Site Wafer Bump Material		
Assembly Process Assembly Materials		Part number change			Wafer Bump Process		
Mechanical Specification		Test Site		Wafer Fab Site			
Packing/Shipping/Labelin					Wafer Fab Materials		
					ab 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:							
Material		Current	Propos	ed			
Mold compound		4209640	422149	9			
Person for Changes							
Reason for Change:							
Continuity of supply.				اممر برم مرمور مع امرام مور	we a hawial		
VDE certification expirin				· · ·			
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):							
None.	None.						
Anticipated impact on Material Declaration							
No Impact to the		Material Declarations or Product Content reports are driven from					
Material Declaration	on	production data and will be available following the production					
		release. Upon production release the revised reports can be obtained from the <u>TI Eco-Info website</u> . There is no impact to the					
		material meeting current regulatory compliance requirements					
		with this PCN of	.	guiatory complia	nee requirements		
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

Туре	Test Name / Condition	Duration	Qual Device: <u>AMC1204QDWRQ1</u>
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/lsds/ti/legal/termsofsale.page"

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com