

PCN Number:	20200803000.1		PCN Date:	Aug 03, 2020										
Title:	PBO to PI conversion for the OPA2211AIDDA/R device													
Customer Contact:	PCN Manager	Dept:	Quality Services											
Proposed 1st Ship Date:	Nov 03, 2020	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 checked="" 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"/>	Wafer Fab Process									
PCN Details														
Description of Change:														
This notification is to announce the qualification of Polyimide as a replacement for the current PBO die coat for the OPA2211AIDDA/R device.														
<table border="1"> <thead> <tr> <th></th> <th>Current</th> <th>Proposed</th> </tr> </thead> <tbody> <tr> <td>Passivation</td> <td>PBO</td> <td>PI</td> </tr> <tr> <td>Leadframe</td> <td>NiPdAu (Non-rough)</td> <td>NiPdAu (Single Side Top Roughened)</td> </tr> </tbody> </table>							Current	Proposed	Passivation	PBO	PI	Leadframe	NiPdAu (Non-rough)	NiPdAu (Single Side Top Roughened)
	Current	Proposed												
Passivation	PBO	PI												
Leadframe	NiPdAu (Non-rough)	NiPdAu (Single Side Top Roughened)												
Reason for Change:														
Continuity of Supply														
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):														
None														
Anticipated impact on Material Declaration														
<input checked="" type="checkbox"/>	No Impact to the Material Declaration	<input 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 at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp											
Changes to product identification resulting from this PCN:														
None														
Product Affected:														
OPA2211AIDDA		OPA2211AIDDAR												

Qualification Data

Approved on 07/29/2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>OPA2211AIDDA</u>	QBS Process Reference: <u>INA826AIDGK</u>	QBS Process Reference: <u>OPA1612AID</u>	QBS Process Reference: <u>OPA209AID</u>	QBS Process Reference: <u>OPA827AIDGK</u>
HTOL	Life Test, 150C	300 Hours	-	1/77/0	3/231/0	1/77/0	1/74/0
HBM	ESD - HBM	2500 V	-	1/3/0	1/3/0	1/3/0	1/3/0
CDM	ESD - CDM	1000 V	-	1/3/0	1/3/0	1/3/0	1/3/0
LU	Latch-up	Per JESD78	-	1/12/0	2/12/0	1/12/0	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0	3/90/0	1/30/0	1/30/0
-	Pb Free Solderability	Pb Free/Solderability	3/66/0	-	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0	3/90/0	1/30/0	1/30/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	1/45/0	3/135/0	1/45/0	1/45/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	1/77/0	3/231/0	1/77/0	1/77/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	3/231/0	-	-	-	-

- QBS: Qual By Similarity

- Qual Device OPA2211AIDDA is qualified at LEVEL1-260C

- 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

For questions regarding this notice, e-mails can be sent to the 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
WW PCN Team	PCN_ww_admin_team@list.ti.com

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.